

Pantheon Report

Generated at 2017-12-20 12:21:50 (UTC).

Data path: GCE London Ethernet (*remote*) → GCE Sydney Ethernet (*local*).

Repeated the test of 14 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

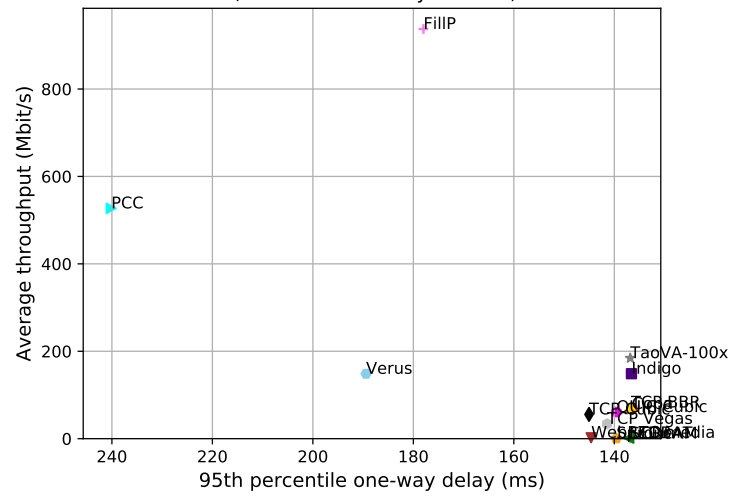
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).

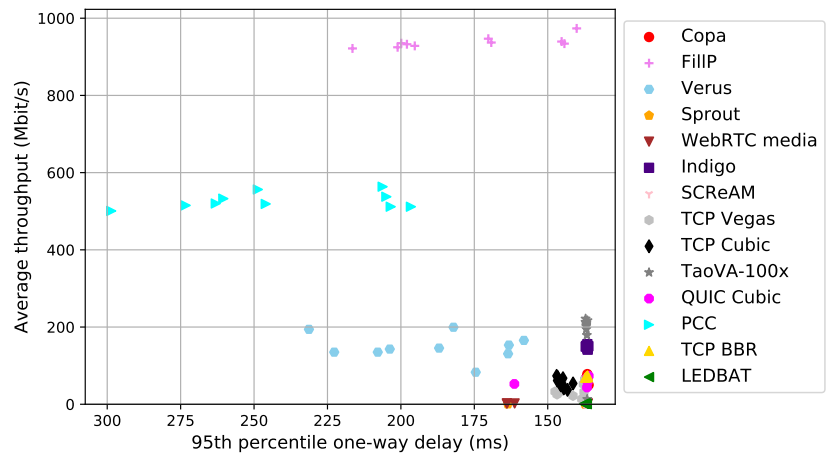
Git summary:

```
branch: master @ 904a5750834816b1e46a2c86405d707788d27c16
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/llp @ dcaef6b00654e660f73f7ed679d2eab61ce08639
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeab30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/webRTC @ a488197ddd041ace68a42849b2540ad834825f42
```

test from GCE London Ethernet to GCE Sydney Ethernet, 10 runs of 30s each per scheme
(mean of all runs by scheme)



test from GCE London Ethernet to GCE Sydney Ethernet, 10 runs of 30s each per scheme



scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	10	71.20	136.67	1.25
TCP Cubic	10	55.53	145.03	1.70
LEDBAT	10	1.02	137.12	1.27
PCC	10	526.85	240.13	3.19
QUIC Cubic	8	60.91	139.56	1.31
SCReAM	10	0.21	136.92	0.89
WebRTC media	10	2.05	144.62	1.08
Sprout	10	0.45	139.60	0.83
TaoVA-100x	9	184.30	136.82	1.00
TCP Vegas	10	33.87	141.43	1.82
Verus	10	148.43	189.41	2.58
Copa	6	68.03	136.53	0.93
FillP	10	937.37	177.99	1.46
Indigo	9	148.64	136.59	1.23

Run 1: Statistics of TCP BBR

Start at: 2017-12-20 07:21:42

End at: 2017-12-20 07:22:12

Below is generated by plot.py at 2017-12-20 11:31:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 70.87 Mbit/s

95th percentile per-packet one-way delay: 136.639 ms

Loss rate: 1.38%

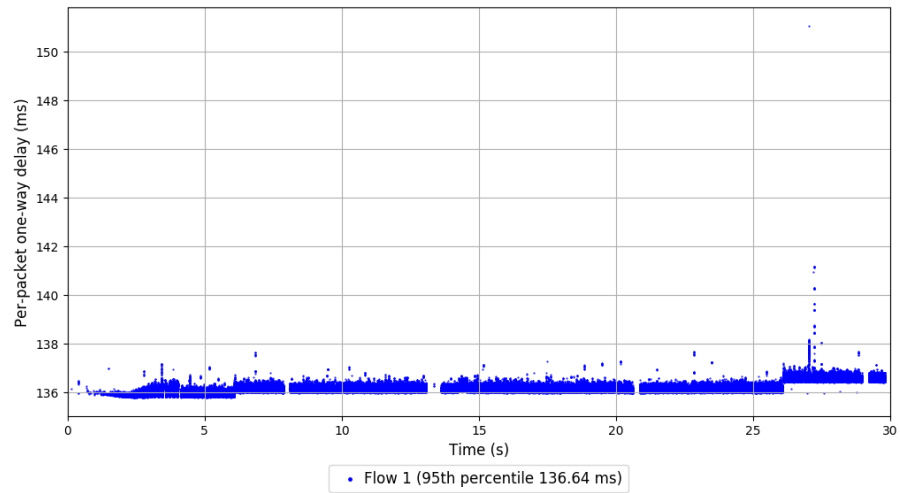
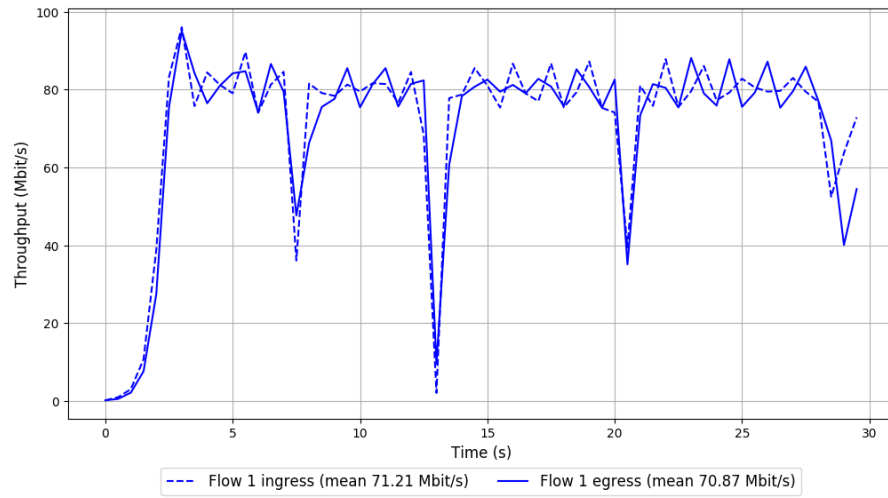
-- Flow 1:

Average throughput: 70.87 Mbit/s

95th percentile per-packet one-way delay: 136.639 ms

Loss rate: 1.38%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-12-20 07:34:56

End at: 2017-12-20 07:35:26

Below is generated by plot.py at 2017-12-20 11:31:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.56 Mbit/s

95th percentile per-packet one-way delay: 136.687 ms

Loss rate: 1.05%

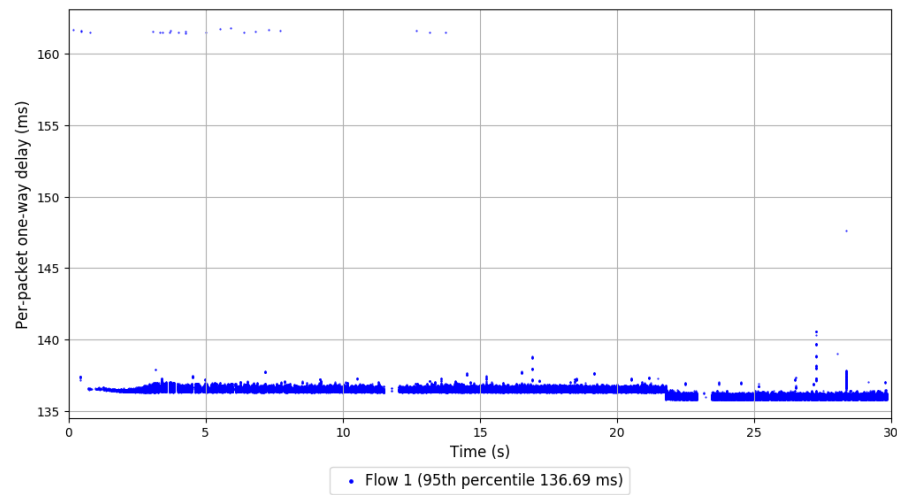
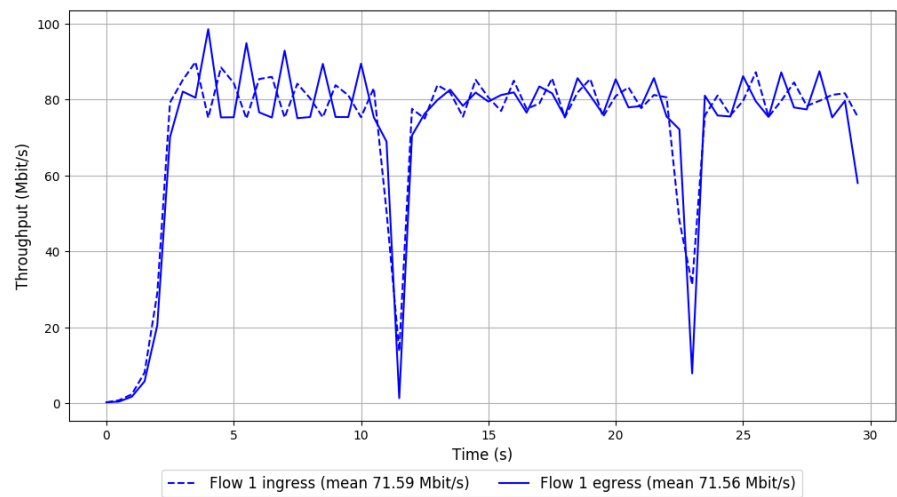
-- Flow 1:

Average throughput: 71.56 Mbit/s

95th percentile per-packet one-way delay: 136.687 ms

Loss rate: 1.05%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-12-20 07:48:08

End at: 2017-12-20 07:48:39

Below is generated by plot.py at 2017-12-20 11:31:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 70.13 Mbit/s

95th percentile per-packet one-way delay: 136.672 ms

Loss rate: 1.35%

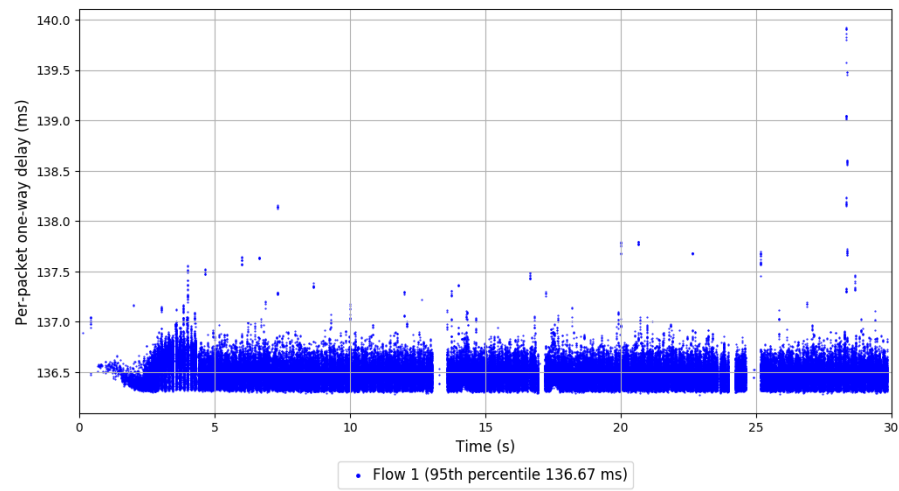
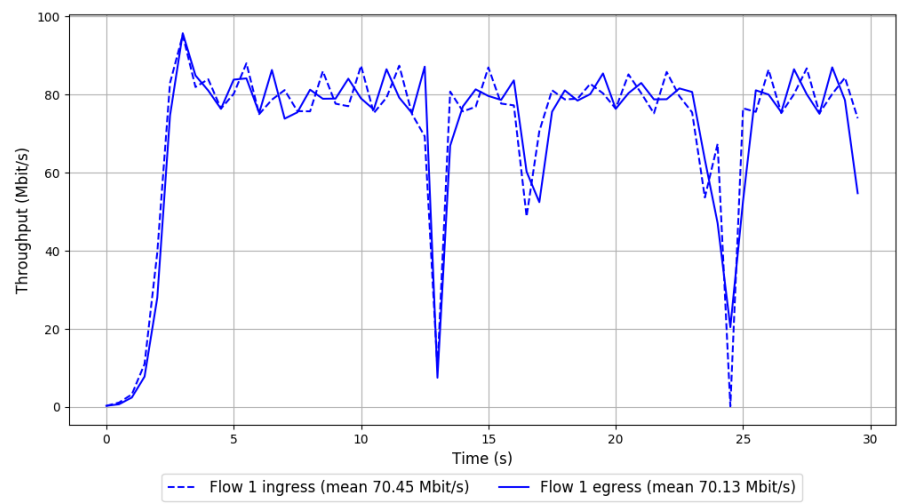
-- Flow 1:

Average throughput: 70.13 Mbit/s

95th percentile per-packet one-way delay: 136.672 ms

Loss rate: 1.35%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-12-20 08:01:09

End at: 2017-12-20 08:01:39

Below is generated by plot.py at 2017-12-20 11:31:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 69.70 Mbit/s

95th percentile per-packet one-way delay: 136.720 ms

Loss rate: 1.15%

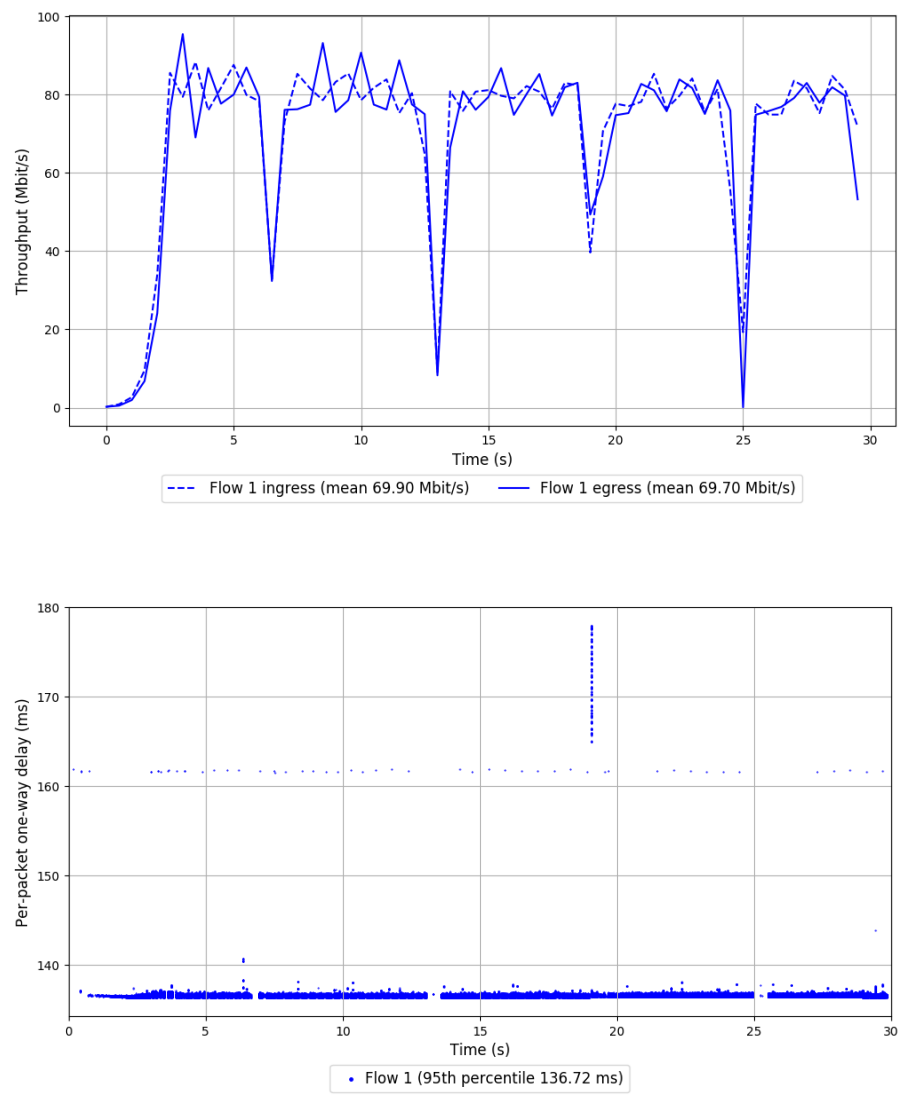
-- Flow 1:

Average throughput: 69.70 Mbit/s

95th percentile per-packet one-way delay: 136.720 ms

Loss rate: 1.15%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-12-20 08:13:49

End at: 2017-12-20 08:14:19

Below is generated by plot.py at 2017-12-20 11:31:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 68.79 Mbit/s

95th percentile per-packet one-way delay: 137.257 ms

Loss rate: 1.62%

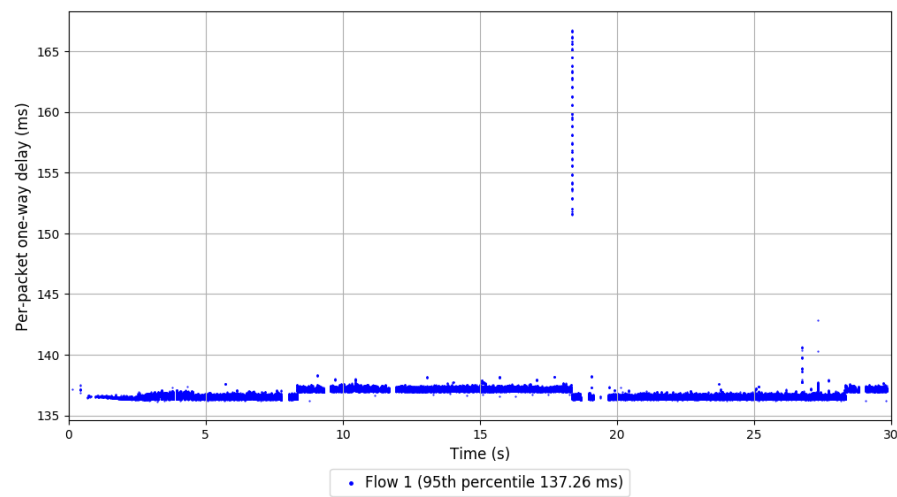
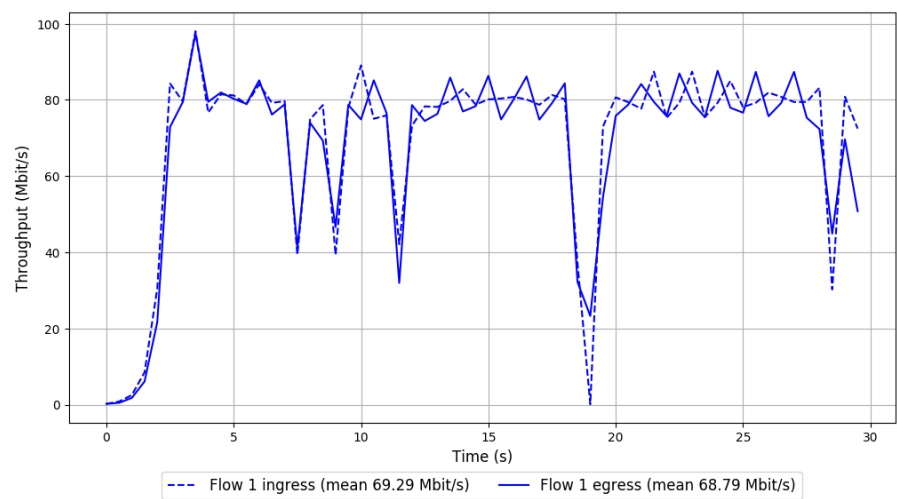
-- Flow 1:

Average throughput: 68.79 Mbit/s

95th percentile per-packet one-way delay: 137.257 ms

Loss rate: 1.62%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-12-20 08:27:04

End at: 2017-12-20 08:27:34

Below is generated by plot.py at 2017-12-20 11:31:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.46 Mbit/s

95th percentile per-packet one-way delay: 136.761 ms

Loss rate: 1.28%

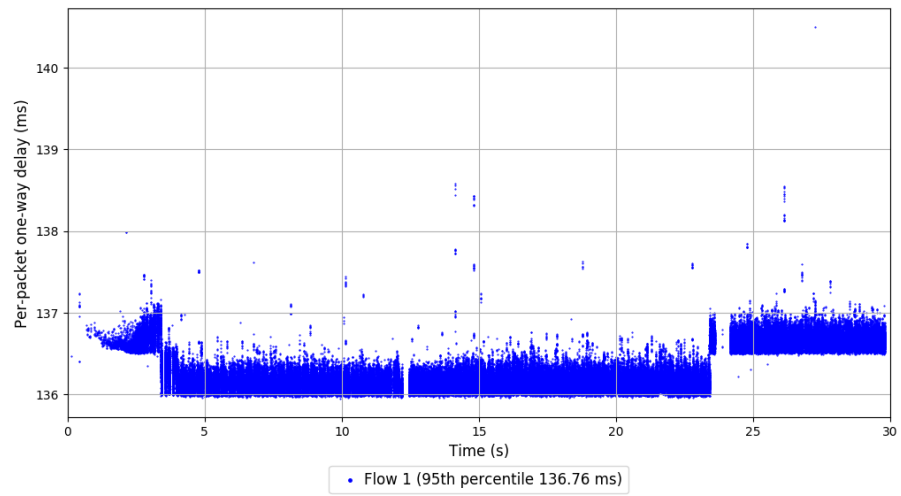
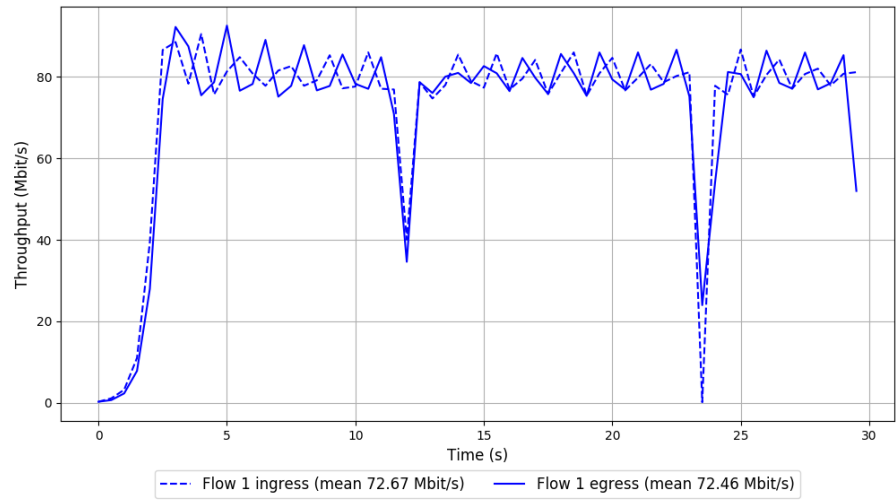
-- Flow 1:

Average throughput: 72.46 Mbit/s

95th percentile per-packet one-way delay: 136.761 ms

Loss rate: 1.28%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-12-20 08:40:07

End at: 2017-12-20 08:40:37

Below is generated by plot.py at 2017-12-20 11:31:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.03 Mbit/s

95th percentile per-packet one-way delay: 136.812 ms

Loss rate: 1.00%

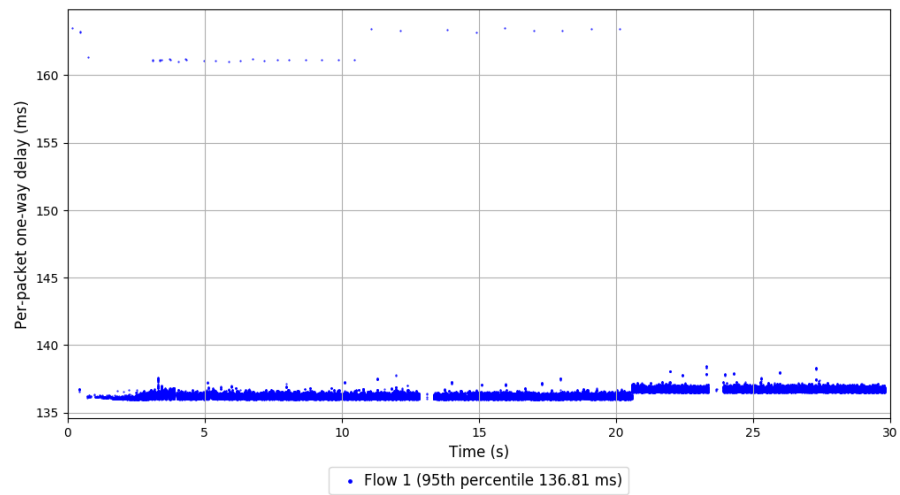
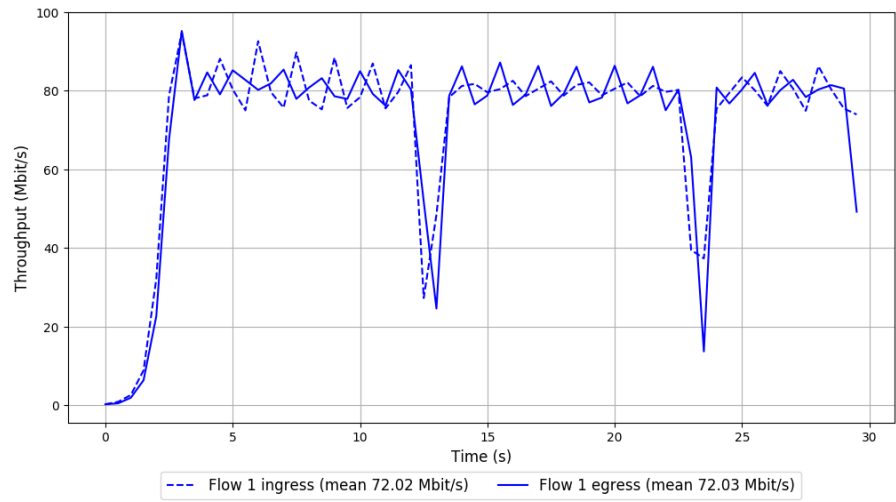
-- Flow 1:

Average throughput: 72.03 Mbit/s

95th percentile per-packet one-way delay: 136.812 ms

Loss rate: 1.00%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-12-20 08:53:14

End at: 2017-12-20 08:53:44

Below is generated by plot.py at 2017-12-20 11:31:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.81 Mbit/s

95th percentile per-packet one-way delay: 136.391 ms

Loss rate: 1.09%

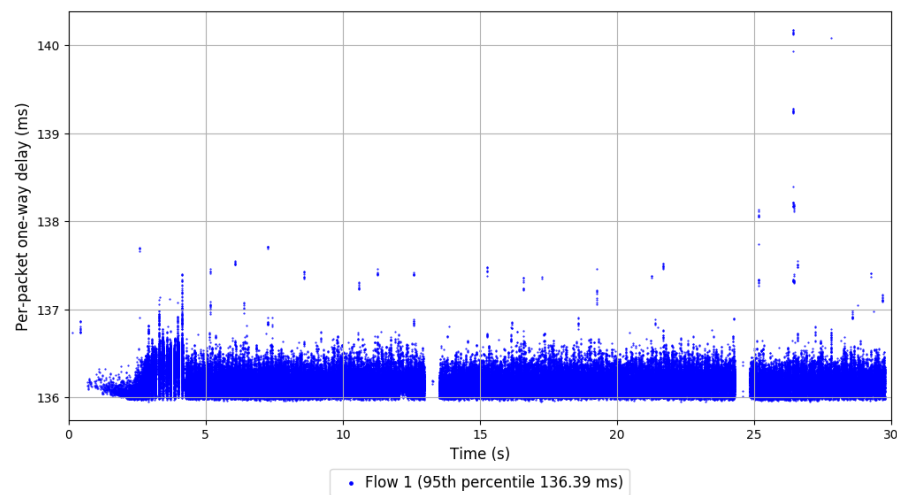
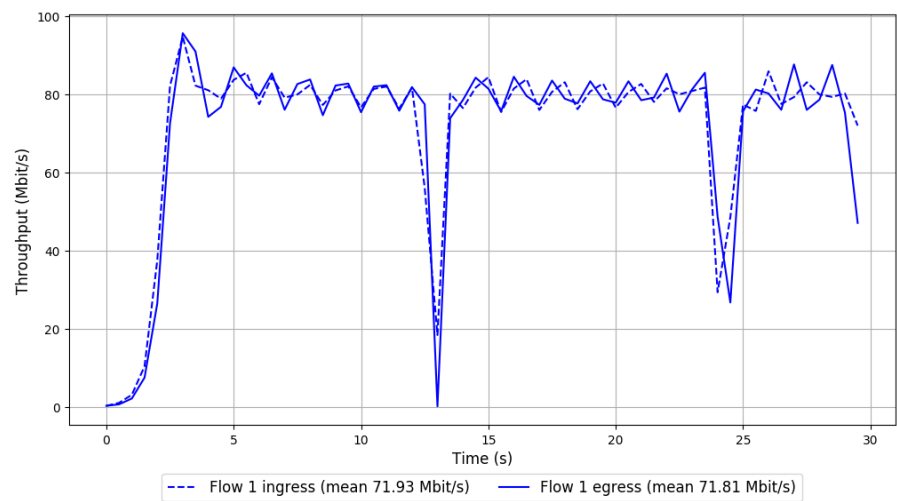
-- Flow 1:

Average throughput: 71.81 Mbit/s

95th percentile per-packet one-way delay: 136.391 ms

Loss rate: 1.09%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-12-20 09:05:53

End at: 2017-12-20 09:06:23

Below is generated by plot.py at 2017-12-20 11:33:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 74.66 Mbit/s

95th percentile per-packet one-way delay: 136.444 ms

Loss rate: 1.16%

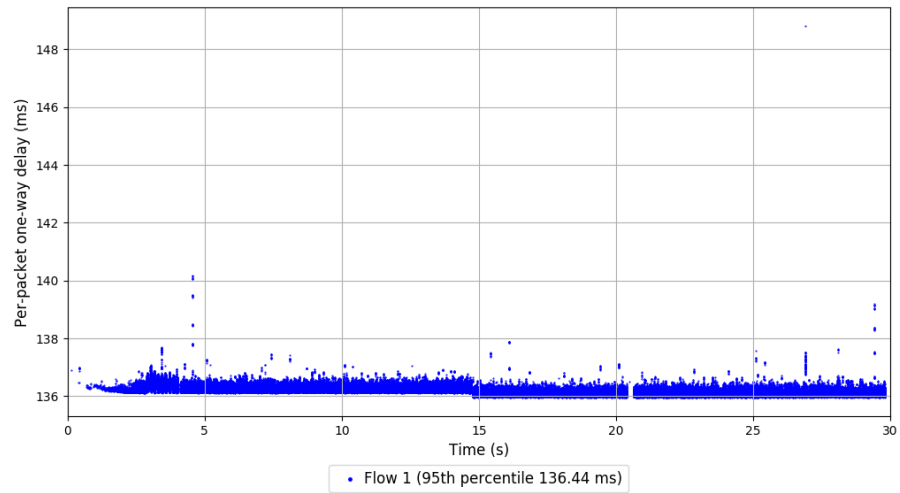
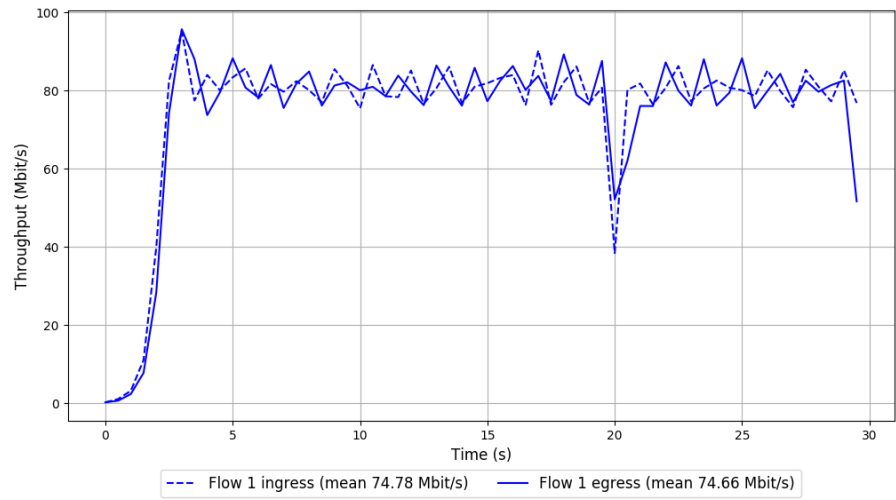
-- Flow 1:

Average throughput: 74.66 Mbit/s

95th percentile per-packet one-way delay: 136.444 ms

Loss rate: 1.16%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-12-20 09:18:50

End at: 2017-12-20 09:19:20

Below is generated by plot.py at 2017-12-20 11:33:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 70.01 Mbit/s

95th percentile per-packet one-way delay: 136.319 ms

Loss rate: 1.43%

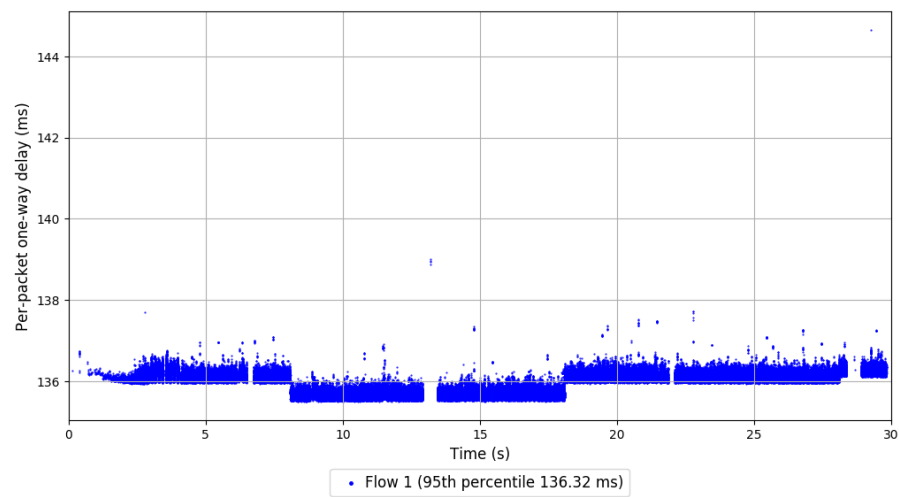
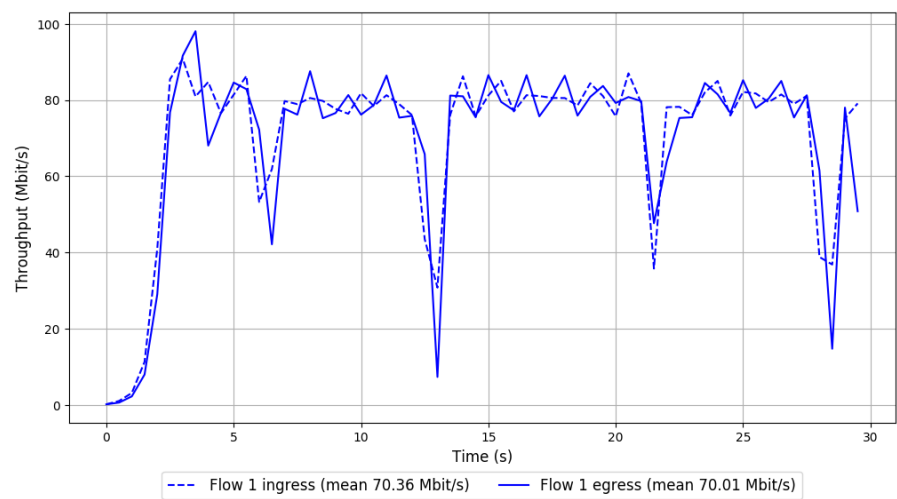
-- Flow 1:

Average throughput: 70.01 Mbit/s

95th percentile per-packet one-way delay: 136.319 ms

Loss rate: 1.43%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-12-20 07:20:55

End at: 2017-12-20 07:21:25

Below is generated by plot.py at 2017-12-20 11:33:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 47.96 Mbit/s

95th percentile per-packet one-way delay: 144.708 ms

Loss rate: 1.80%

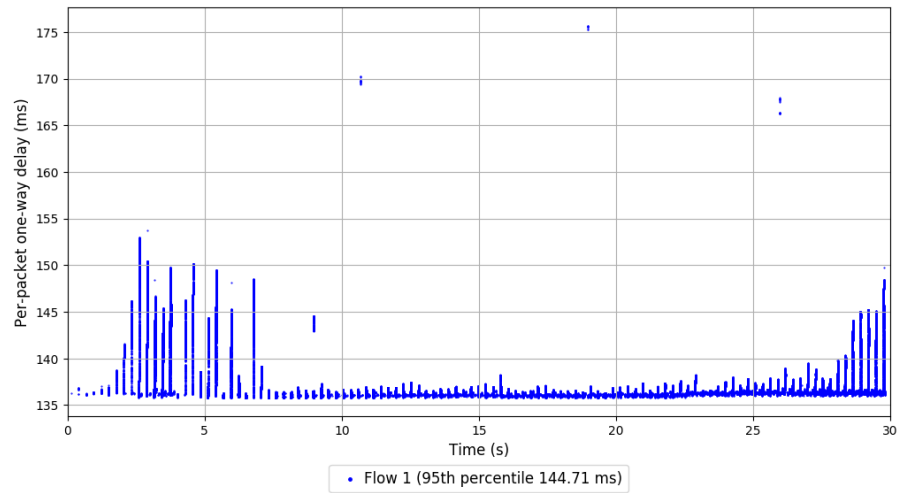
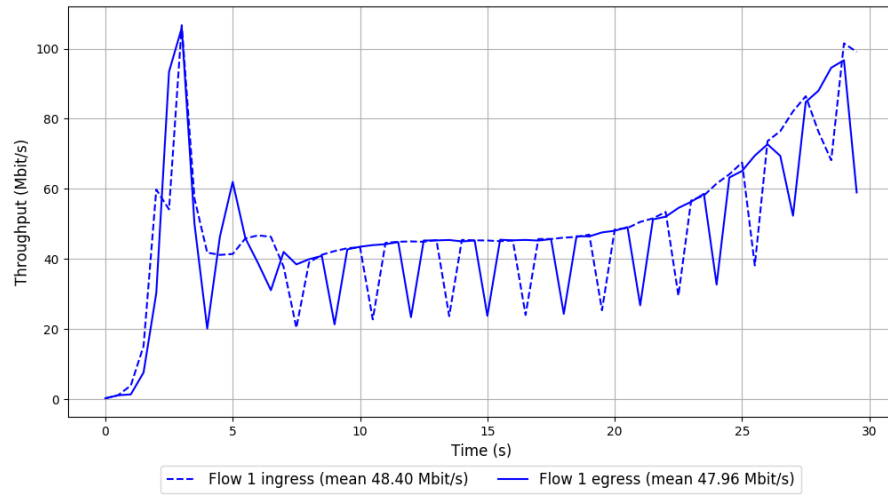
-- Flow 1:

Average throughput: 47.96 Mbit/s

95th percentile per-packet one-way delay: 144.708 ms

Loss rate: 1.80%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-12-20 07:34:07

End at: 2017-12-20 07:34:37

Below is generated by plot.py at 2017-12-20 11:33:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 70.84 Mbit/s

95th percentile per-packet one-way delay: 146.638 ms

Loss rate: 1.36%

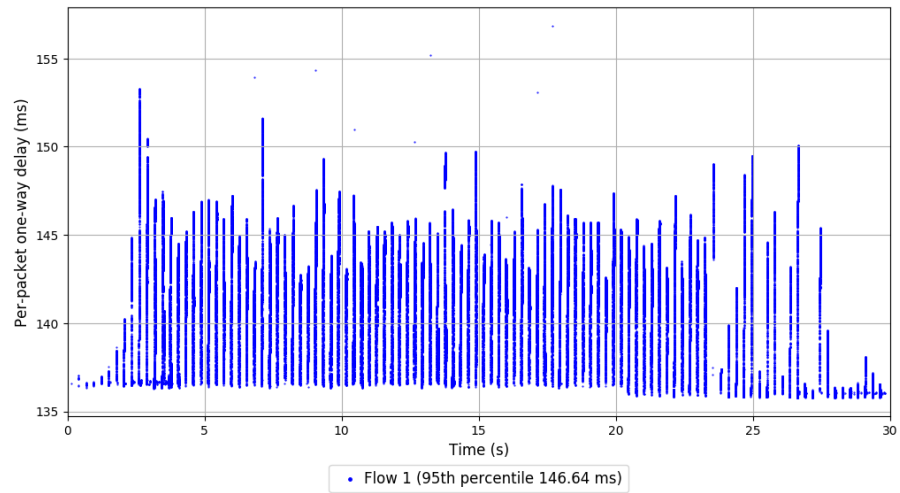
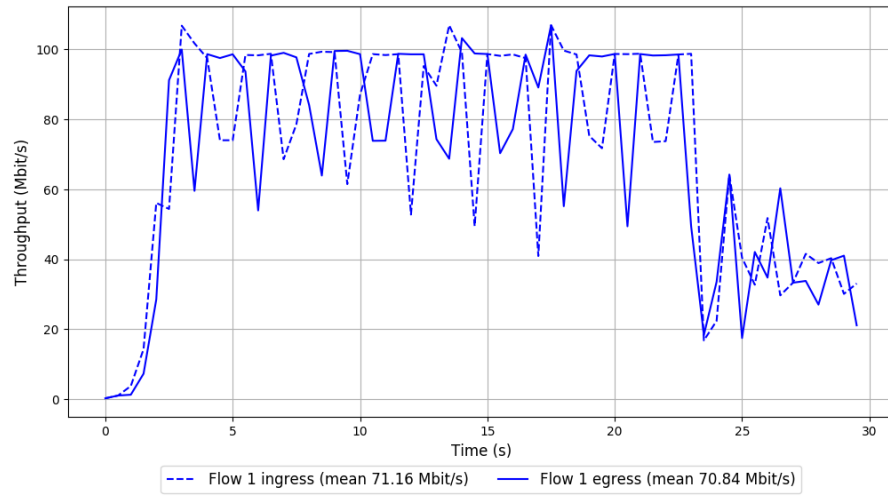
-- Flow 1:

Average throughput: 70.84 Mbit/s

95th percentile per-packet one-way delay: 146.638 ms

Loss rate: 1.36%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-12-20 07:47:20

End at: 2017-12-20 07:47:50

Below is generated by plot.py at 2017-12-20 11:33:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 73.48 Mbit/s

95th percentile per-packet one-way delay: 146.970 ms

Loss rate: 1.25%

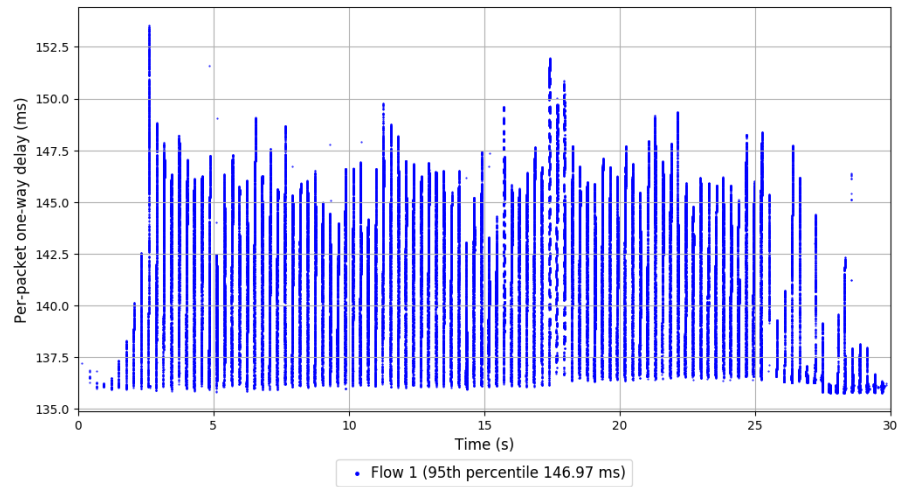
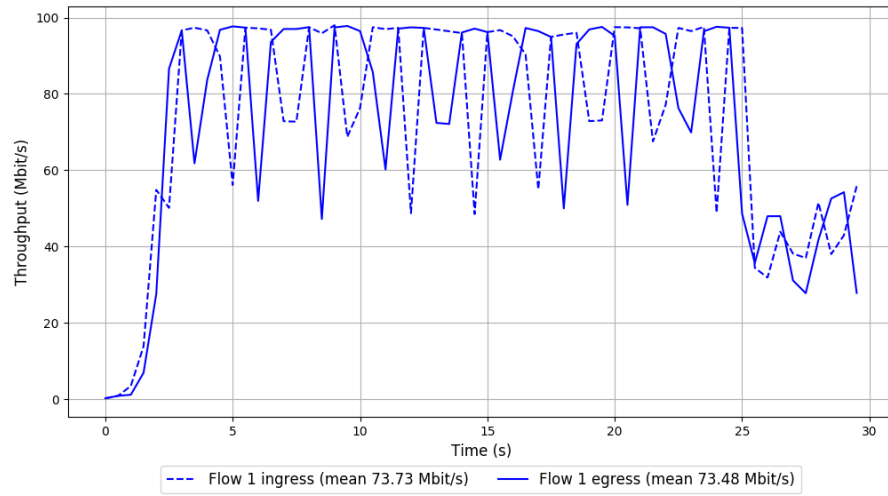
-- Flow 1:

Average throughput: 73.48 Mbit/s

95th percentile per-packet one-way delay: 146.970 ms

Loss rate: 1.25%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-12-20 08:00:22

End at: 2017-12-20 08:00:52

Below is generated by plot.py at 2017-12-20 11:33:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 53.87 Mbit/s

95th percentile per-packet one-way delay: 141.368 ms

Loss rate: 1.51%

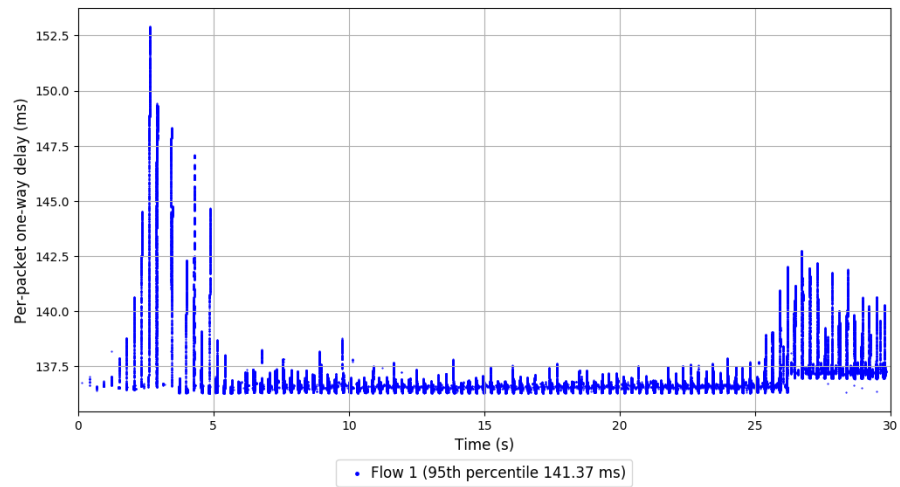
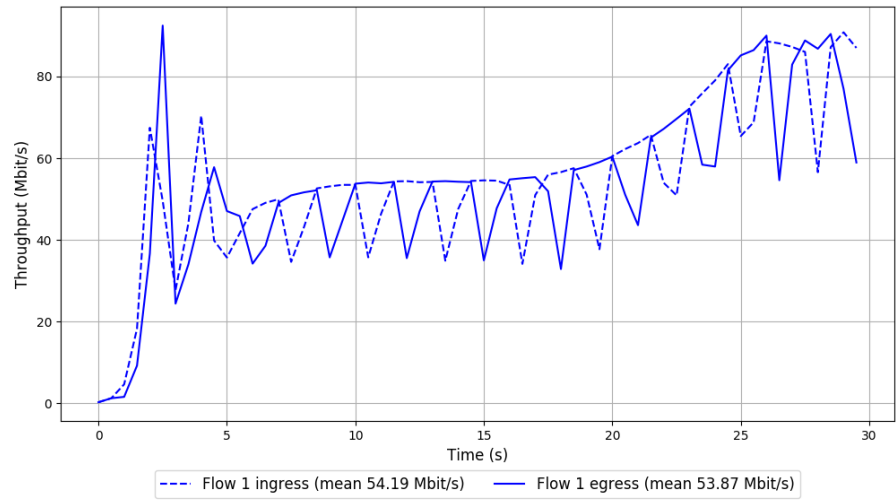
-- Flow 1:

Average throughput: 53.87 Mbit/s

95th percentile per-packet one-way delay: 141.368 ms

Loss rate: 1.51%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-12-20 08:13:02

End at: 2017-12-20 08:13:32

Below is generated by plot.py at 2017-12-20 11:33:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 37.28 Mbit/s

95th percentile per-packet one-way delay: 143.275 ms

Loss rate: 3.88%

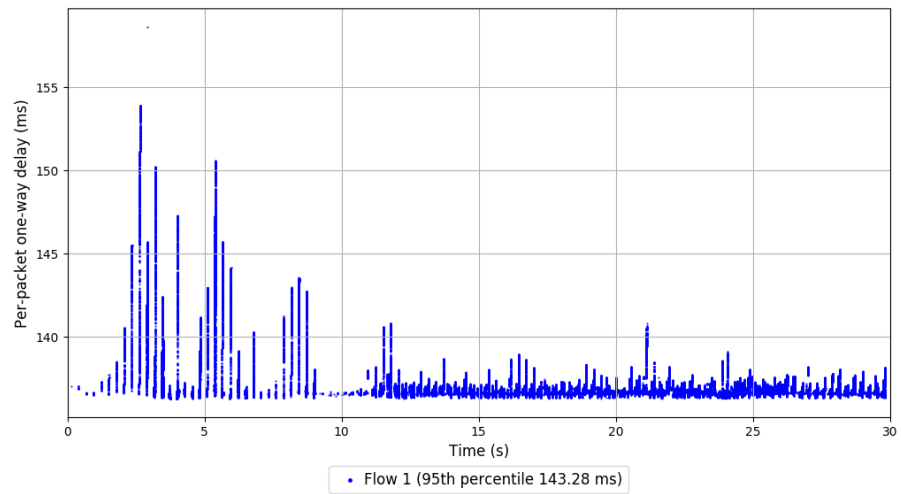
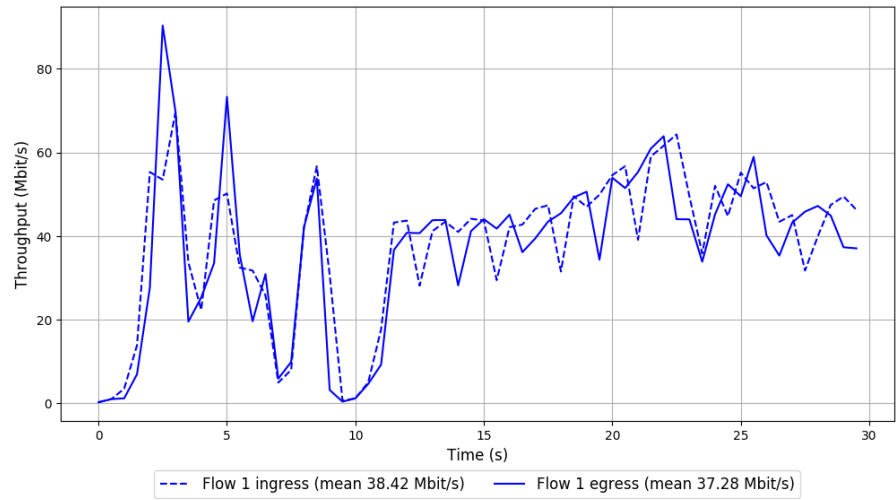
-- Flow 1:

Average throughput: 37.28 Mbit/s

95th percentile per-packet one-way delay: 143.275 ms

Loss rate: 3.88%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-12-20 08:26:18

End at: 2017-12-20 08:26:48

Below is generated by plot.py at 2017-12-20 11:33:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 52.75 Mbit/s

95th percentile per-packet one-way delay: 145.756 ms

Loss rate: 0.89%

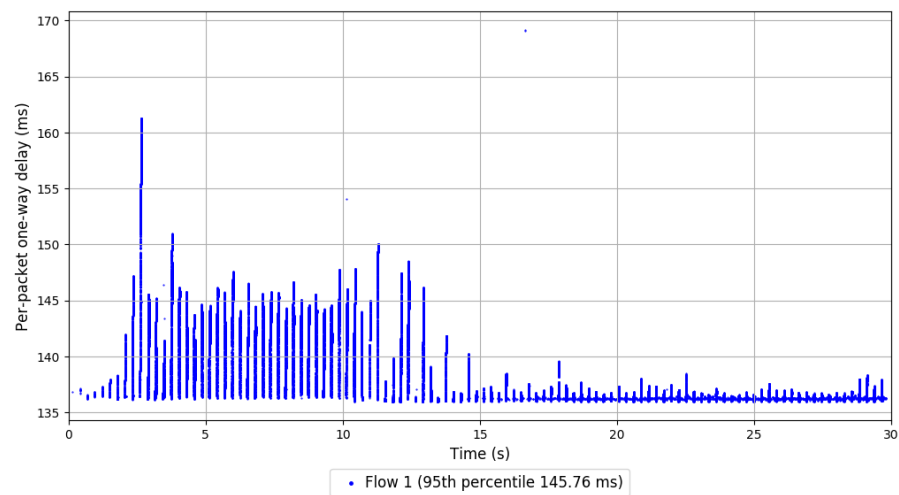
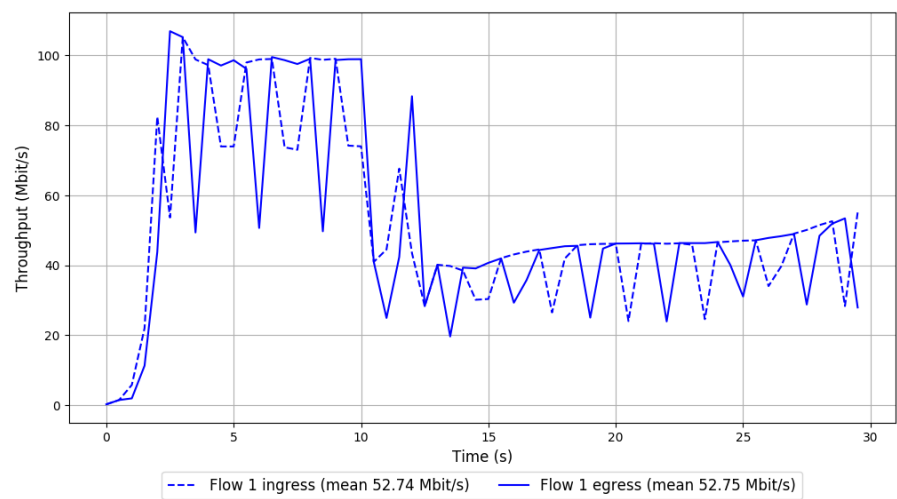
-- Flow 1:

Average throughput: 52.75 Mbit/s

95th percentile per-packet one-way delay: 145.756 ms

Loss rate: 0.89%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-12-20 08:39:20

End at: 2017-12-20 08:39:50

Below is generated by plot.py at 2017-12-20 11:33:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 48.98 Mbit/s

95th percentile per-packet one-way delay: 145.539 ms

Loss rate: 1.77%

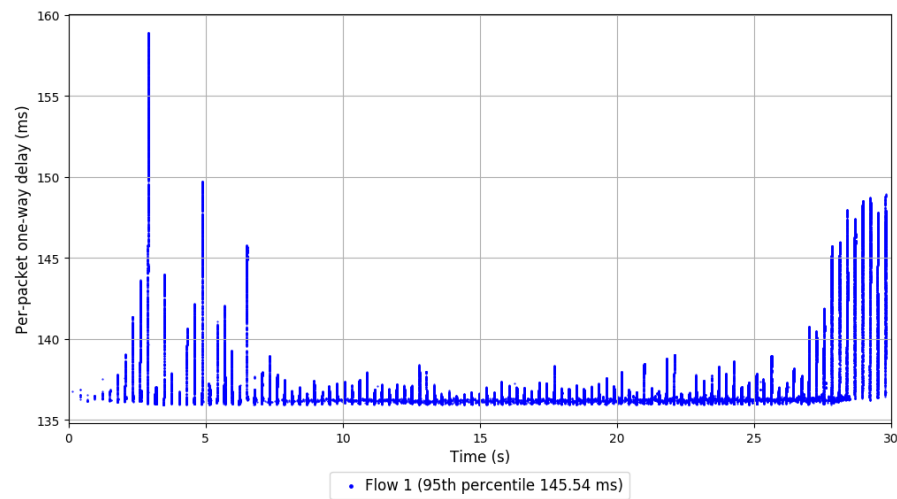
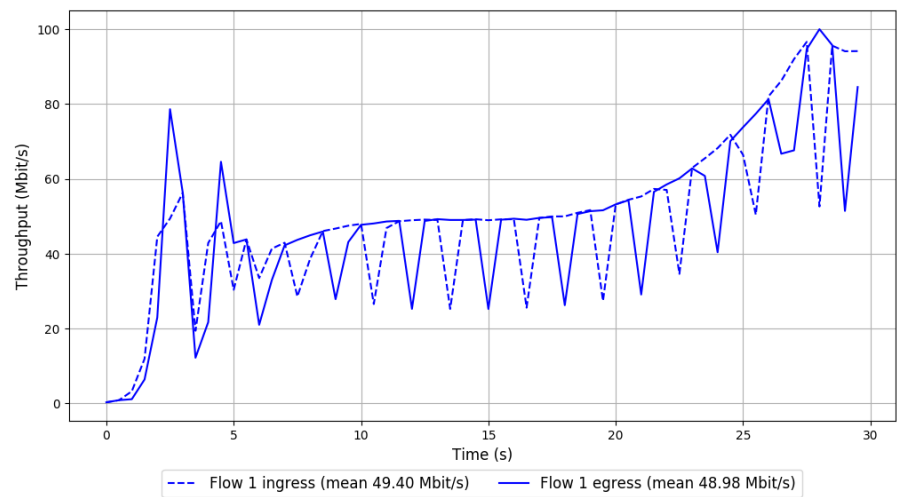
-- Flow 1:

Average throughput: 48.98 Mbit/s

95th percentile per-packet one-way delay: 145.539 ms

Loss rate: 1.77%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-12-20 08:52:25

End at: 2017-12-20 08:52:55

Below is generated by plot.py at 2017-12-20 11:33:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 61.47 Mbit/s

95th percentile per-packet one-way delay: 146.754 ms

Loss rate: 0.79%

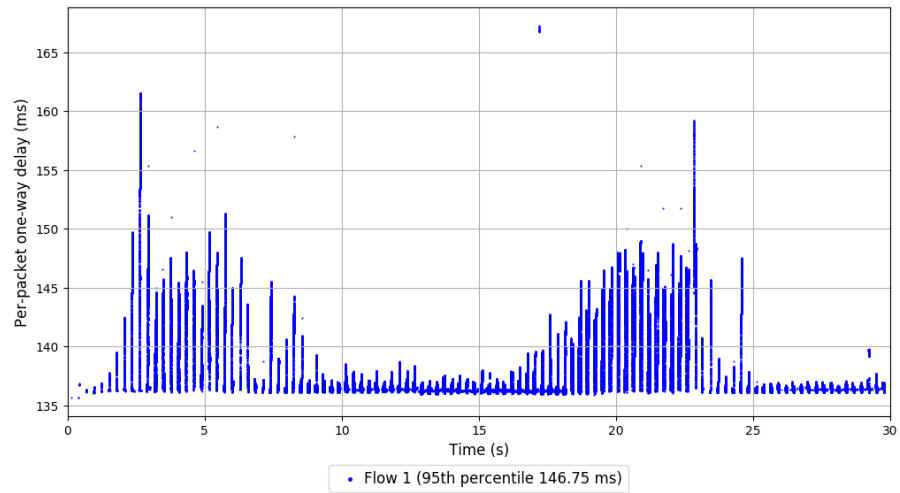
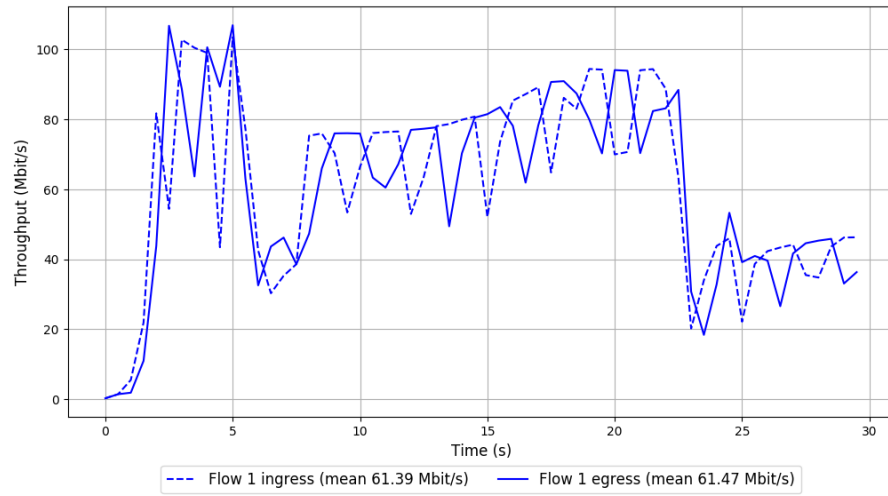
-- Flow 1:

Average throughput: 61.47 Mbit/s

95th percentile per-packet one-way delay: 146.754 ms

Loss rate: 0.79%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-12-20 09:05:05

End at: 2017-12-20 09:05:35

Below is generated by plot.py at 2017-12-20 11:34:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.45 Mbit/s

95th percentile per-packet one-way delay: 144.803 ms

Loss rate: 0.54%

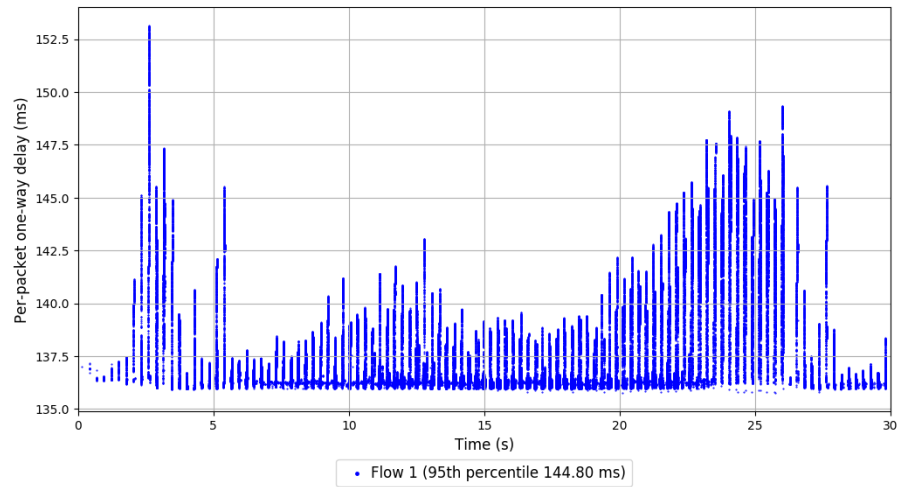
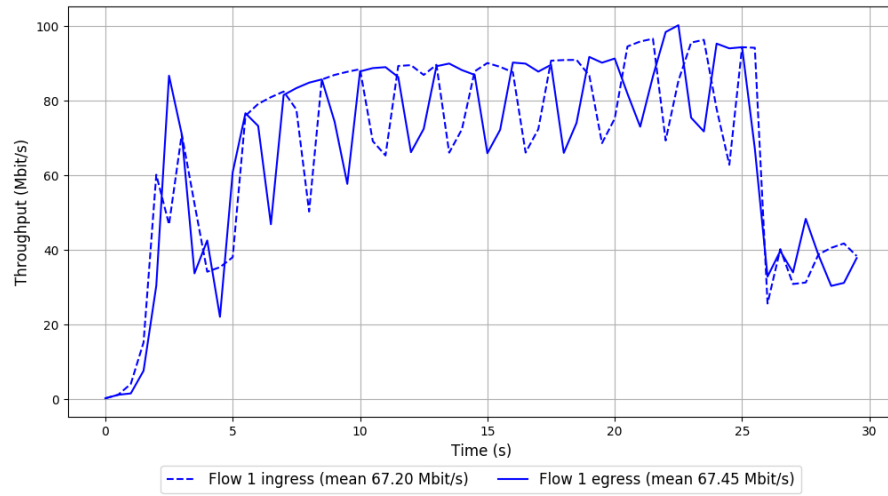
-- Flow 1:

Average throughput: 67.45 Mbit/s

95th percentile per-packet one-way delay: 144.803 ms

Loss rate: 0.54%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-12-20 09:18:04

End at: 2017-12-20 09:18:34

Below is generated by plot.py at 2017-12-20 11:34:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 41.21 Mbit/s

95th percentile per-packet one-way delay: 144.532 ms

Loss rate: 3.18%

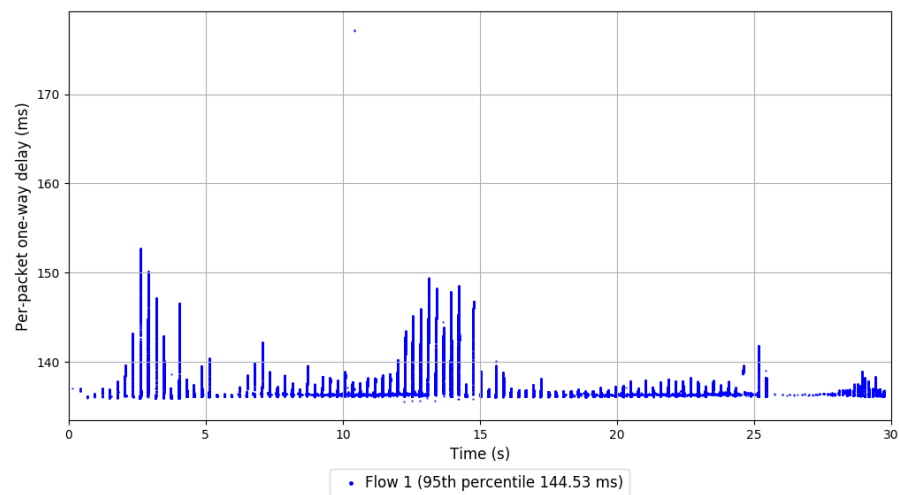
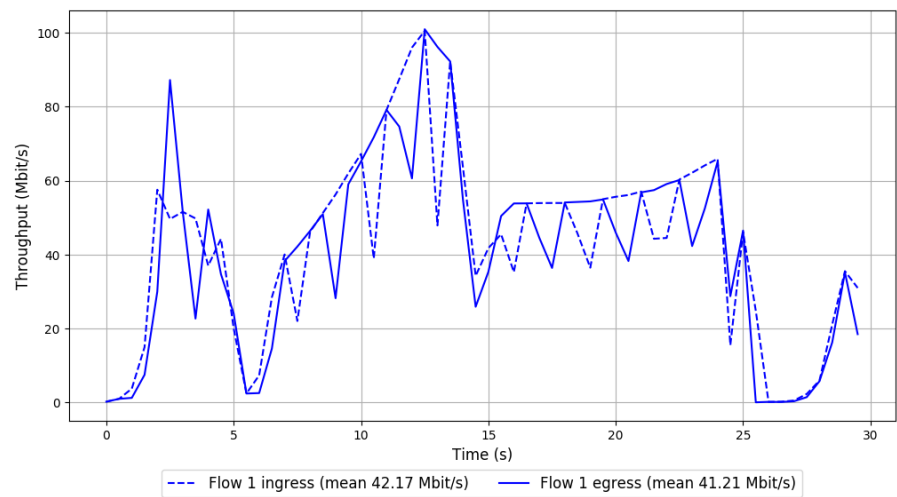
-- Flow 1:

Average throughput: 41.21 Mbit/s

95th percentile per-packet one-way delay: 144.532 ms

Loss rate: 3.18%

Run 10: Report of TCP Cubic — Data Link

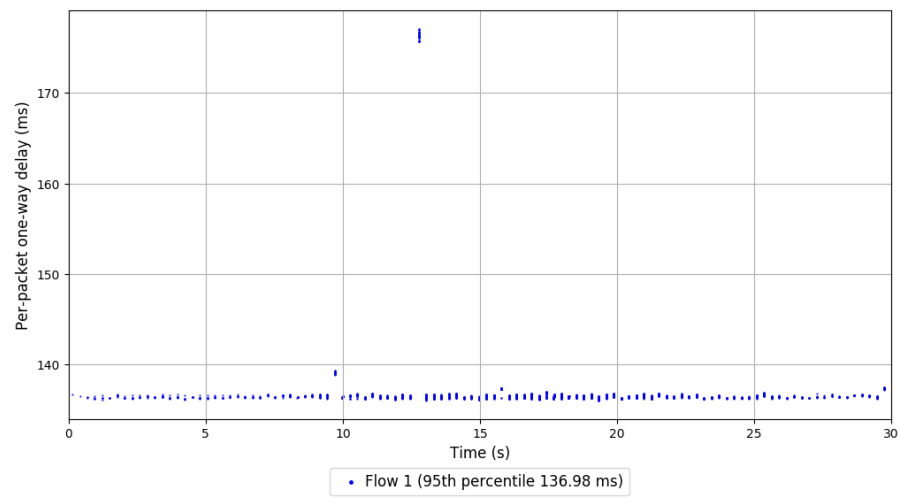
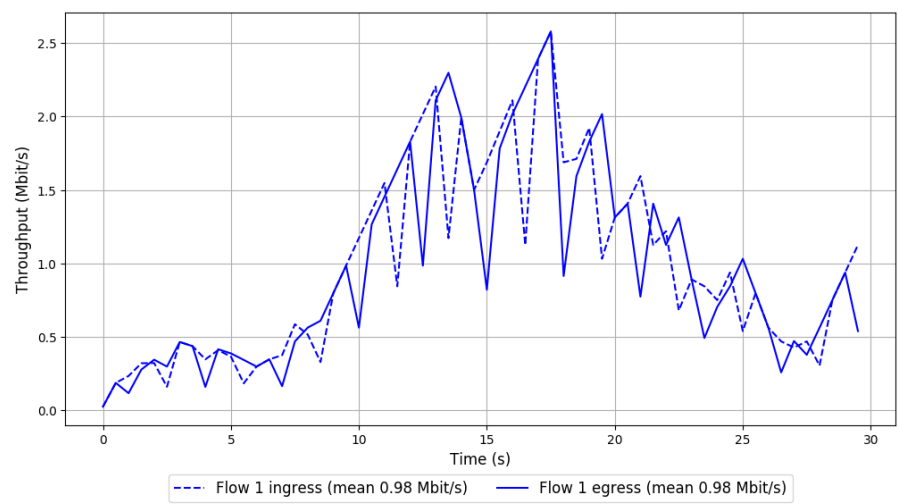


```
Run 1: Statistics of LEDBAT

Start at: 2017-12-20 07:10:58
End at: 2017-12-20 07:11:28

# Below is generated by plot.py at 2017-12-20 11:34:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 136.983 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 136.983 ms
Loss rate: 1.00%
```


Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2017-12-20 07:24:03

End at: 2017-12-20 07:24:33

Below is generated by plot.py at 2017-12-20 11:34:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.69 Mbit/s

95th percentile per-packet one-way delay: 136.700 ms

Loss rate: 1.25%

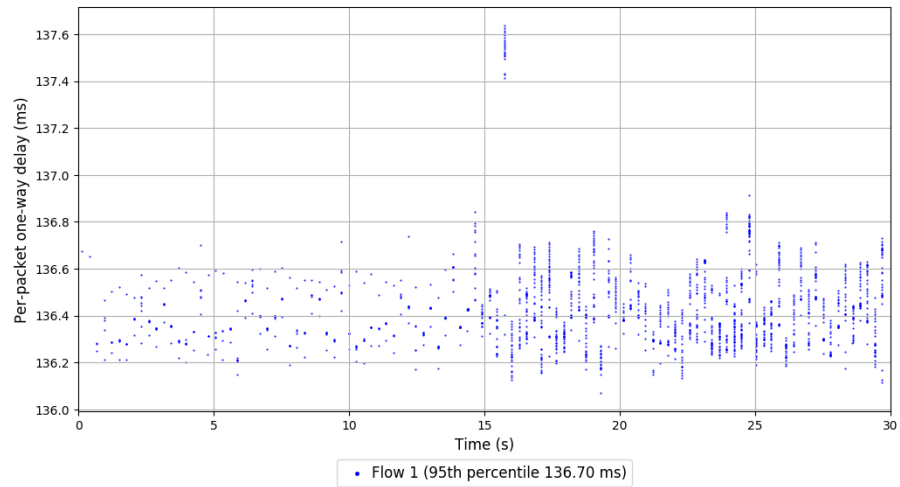
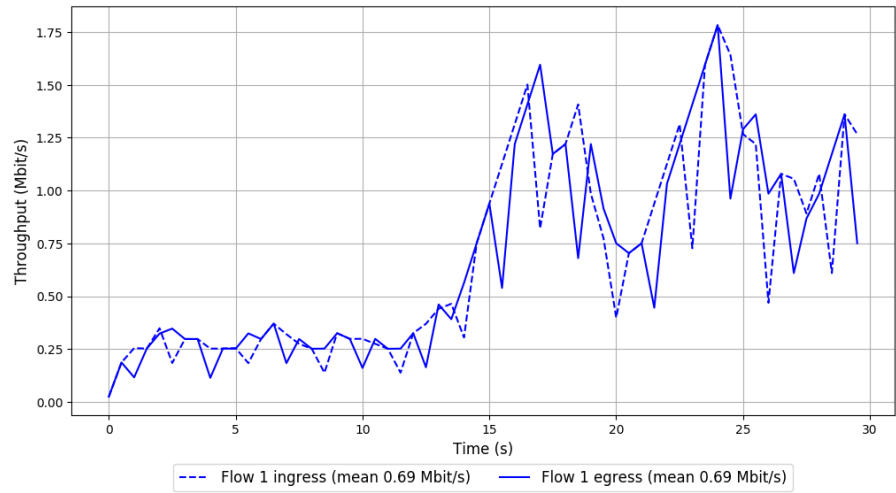
-- Flow 1:

Average throughput: 0.69 Mbit/s

95th percentile per-packet one-way delay: 136.700 ms

Loss rate: 1.25%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-12-20 07:37:18

End at: 2017-12-20 07:37:48

Below is generated by plot.py at 2017-12-20 11:34:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 137.077 ms

Loss rate: 0.63%

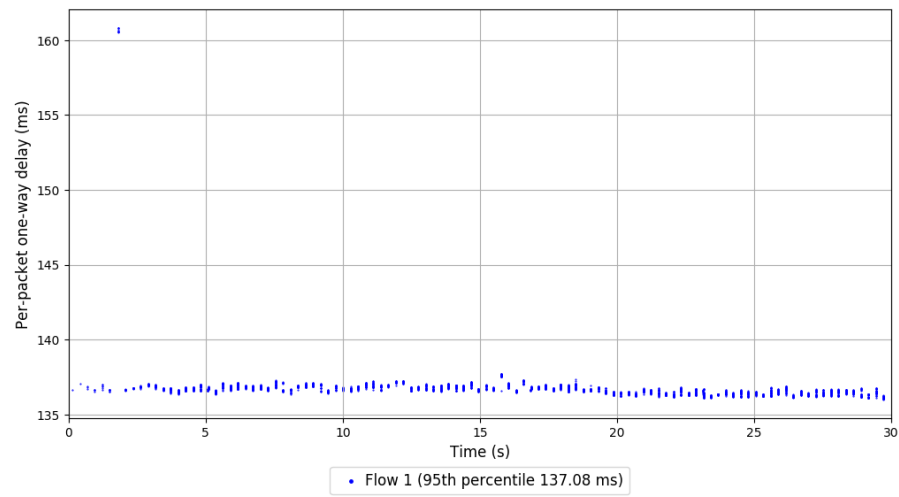
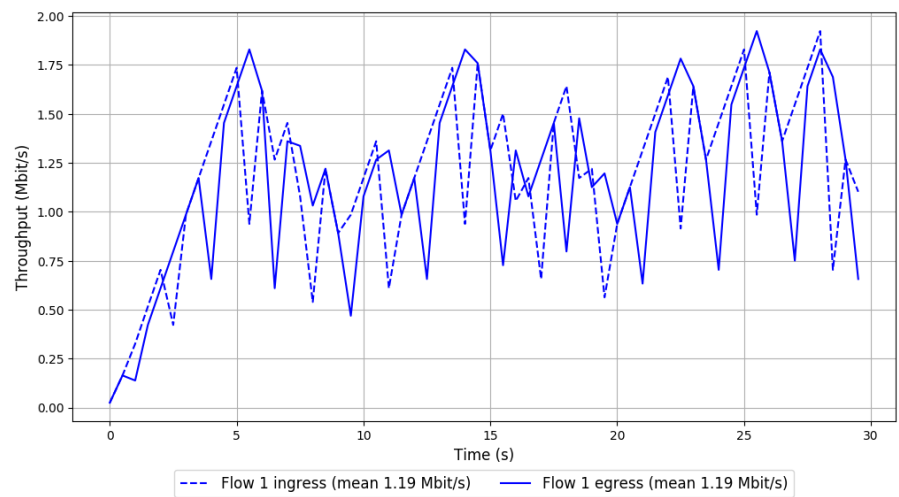
-- Flow 1:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 137.077 ms

Loss rate: 0.63%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-12-20 07:50:23

End at: 2017-12-20 07:50:53

Below is generated by plot.py at 2017-12-20 11:34:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 137.414 ms

Loss rate: 1.01%

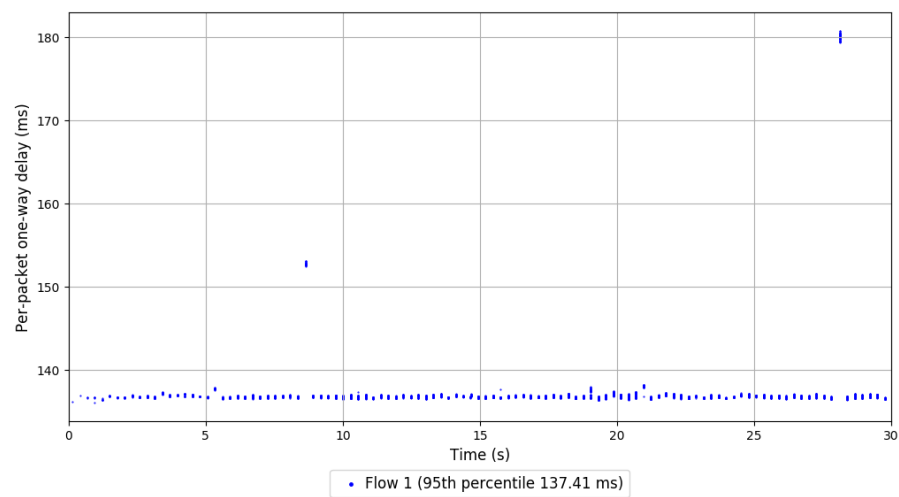
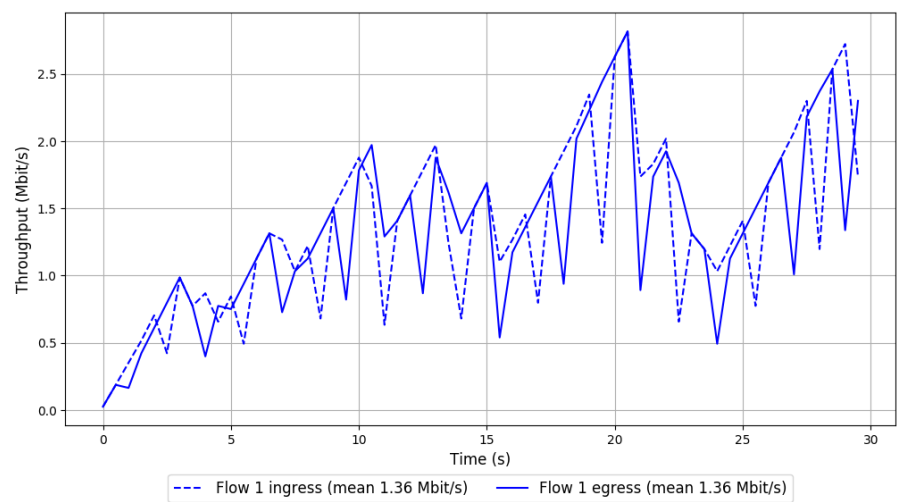
-- Flow 1:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 137.414 ms

Loss rate: 1.01%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-12-20 08:03:24

End at: 2017-12-20 08:03:54

Below is generated by plot.py at 2017-12-20 11:34:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.01 Mbit/s

95th percentile per-packet one-way delay: 137.363 ms

Loss rate: 1.51%

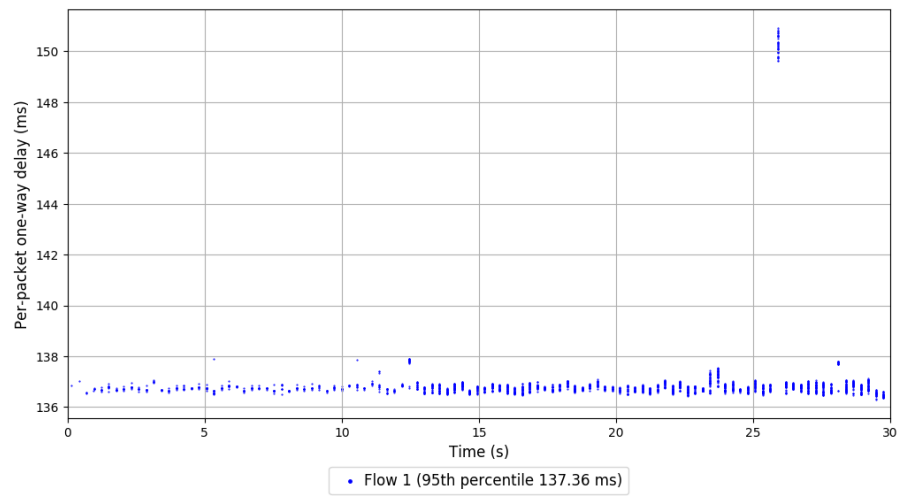
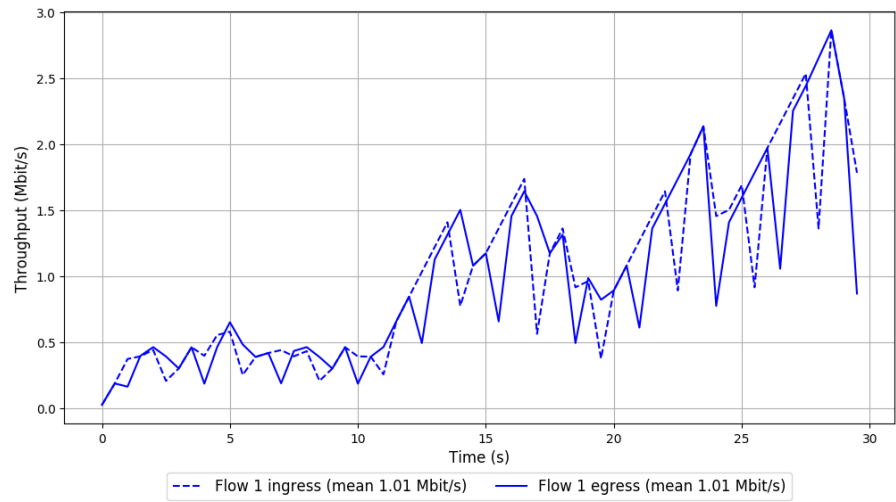
-- Flow 1:

Average throughput: 1.01 Mbit/s

95th percentile per-packet one-way delay: 137.363 ms

Loss rate: 1.51%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-12-20 08:16:10

End at: 2017-12-20 08:16:40

Below is generated by plot.py at 2017-12-20 11:34:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.94 Mbit/s

95th percentile per-packet one-way delay: 137.678 ms

Loss rate: 2.23%

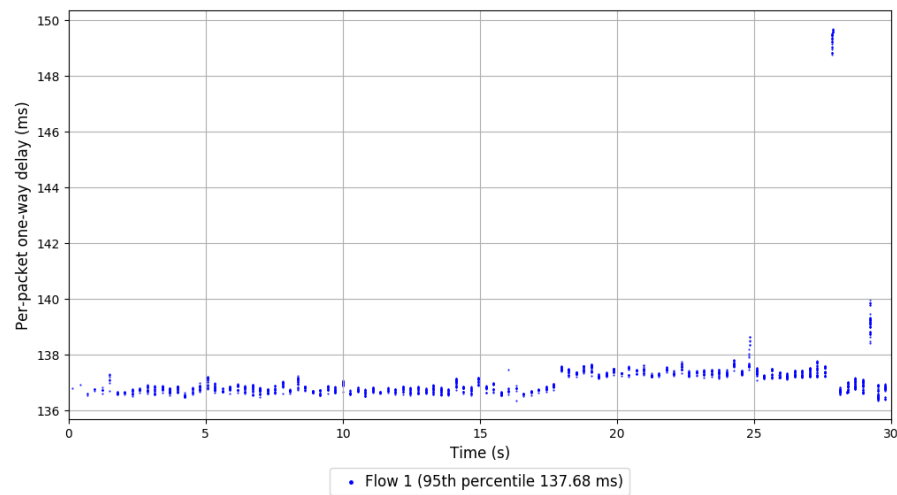
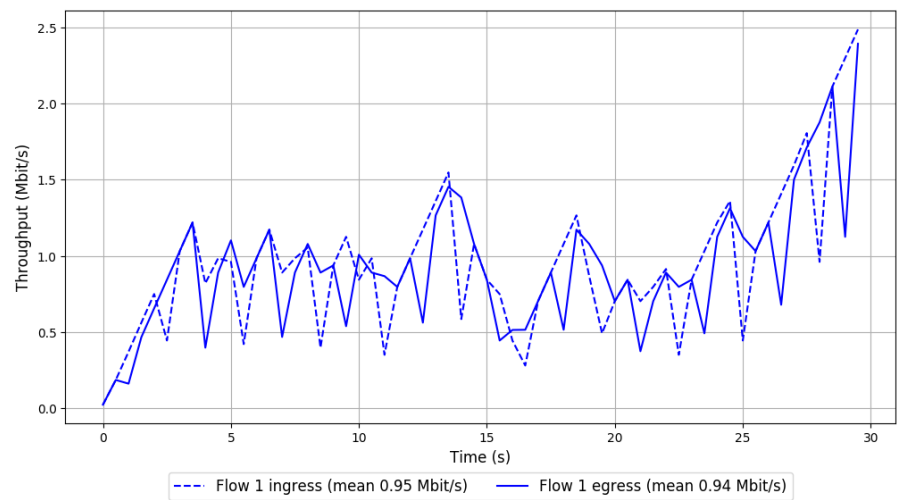
-- Flow 1:

Average throughput: 0.94 Mbit/s

95th percentile per-packet one-way delay: 137.678 ms

Loss rate: 2.23%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-12-20 08:29:27

End at: 2017-12-20 08:29:57

Below is generated by plot.py at 2017-12-20 11:34:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 136.682 ms

Loss rate: 2.26%

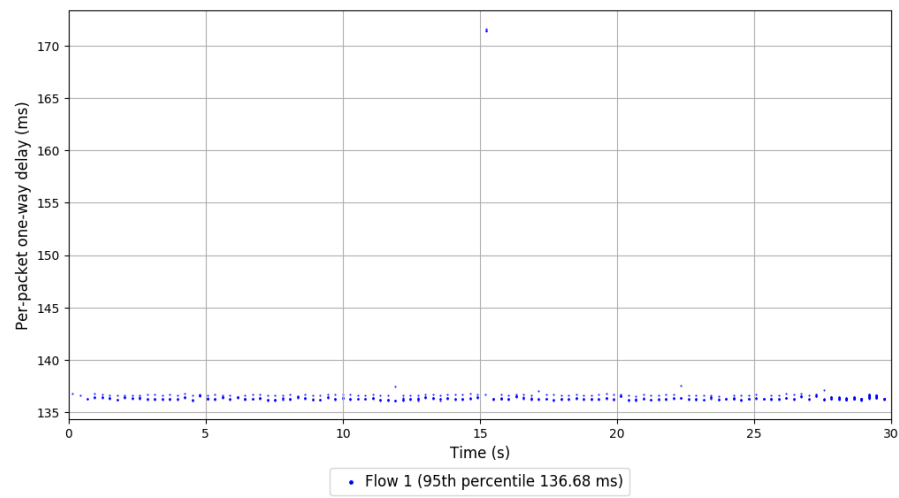
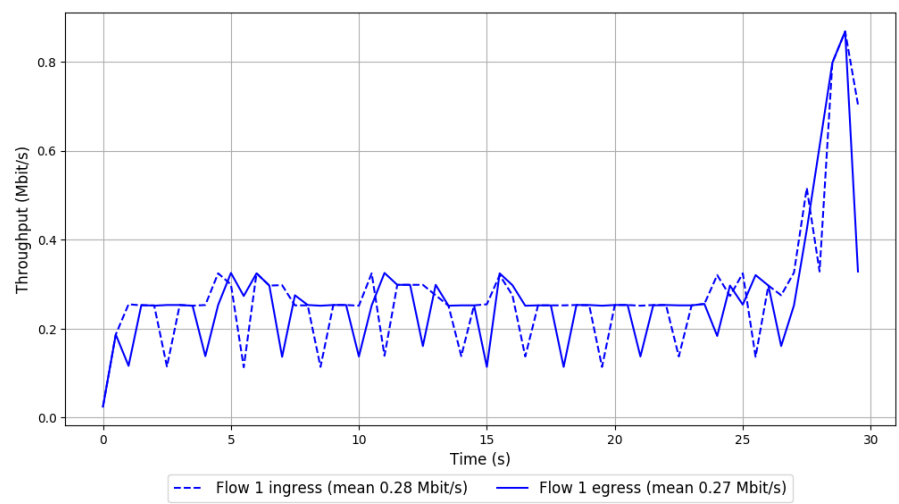
-- Flow 1:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 136.682 ms

Loss rate: 2.26%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-12-20 08:42:21

End at: 2017-12-20 08:42:51

Below is generated by plot.py at 2017-12-20 11:34:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 137.210 ms

Loss rate: 1.26%

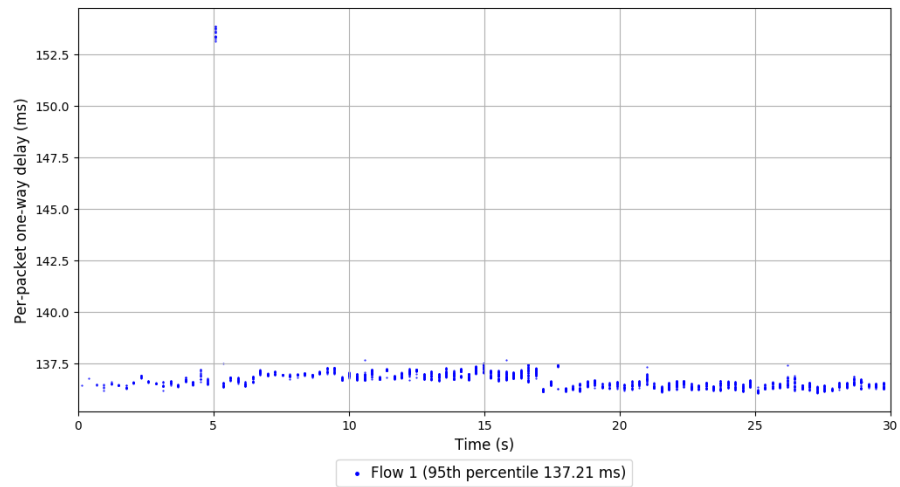
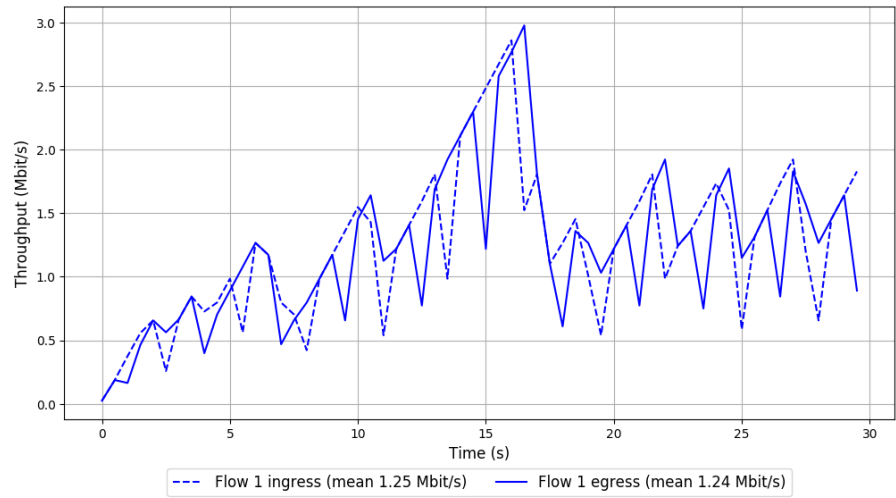
-- Flow 1:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 137.210 ms

Loss rate: 1.26%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-12-20 08:55:27

End at: 2017-12-20 08:55:57

Below is generated by plot.py at 2017-12-20 11:34:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.33 Mbit/s

95th percentile per-packet one-way delay: 136.974 ms

Loss rate: 0.77%

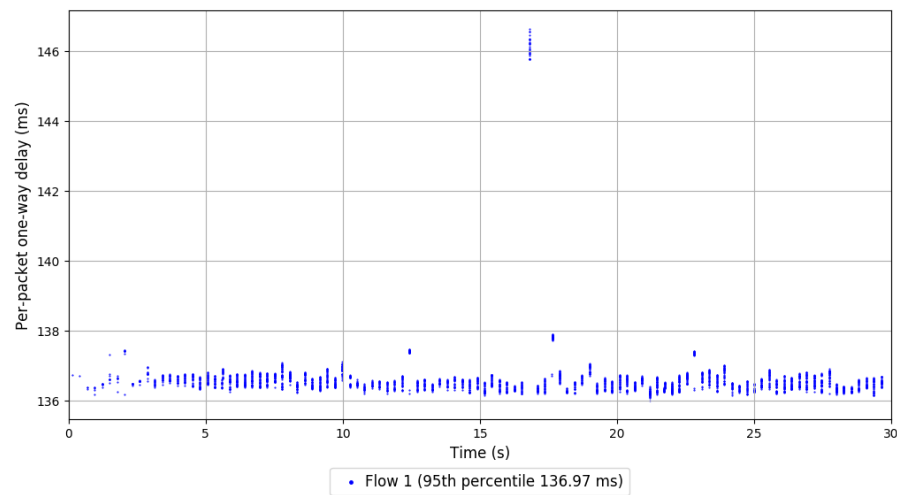
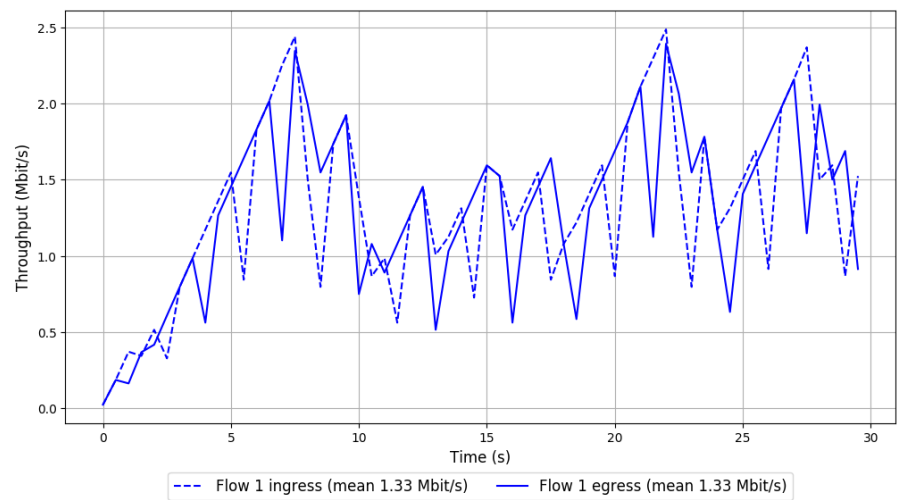
-- Flow 1:

Average throughput: 1.33 Mbit/s

95th percentile per-packet one-way delay: 136.974 ms

Loss rate: 0.77%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-12-20 09:08:14

End at: 2017-12-20 09:08:44

Below is generated by plot.py at 2017-12-20 11:34:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.14 Mbit/s

95th percentile per-packet one-way delay: 137.141 ms

Loss rate: 0.80%

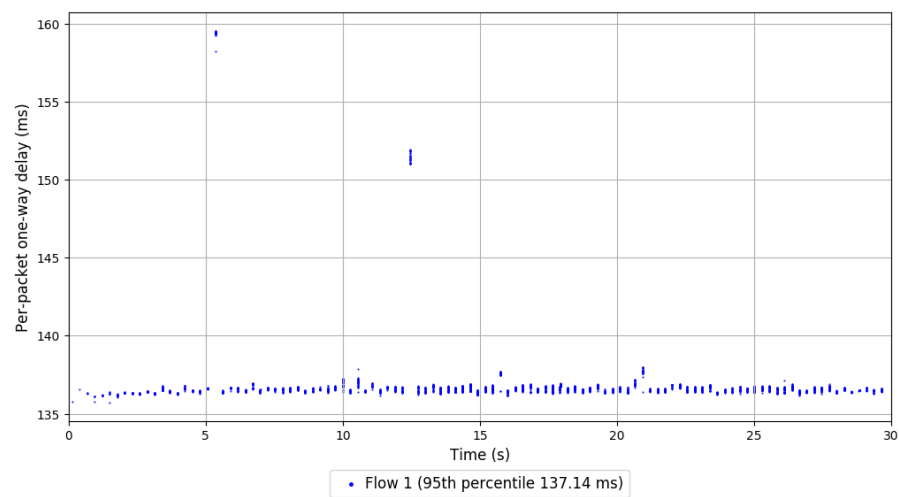
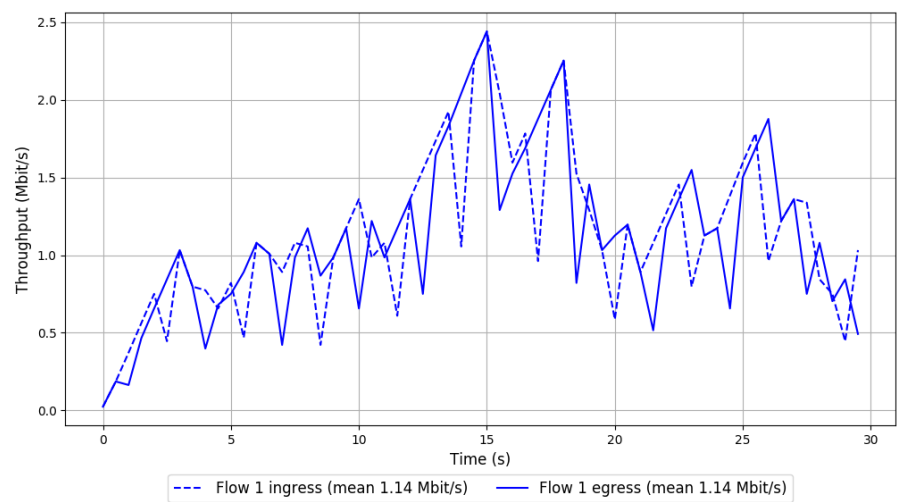
-- Flow 1:

Average throughput: 1.14 Mbit/s

95th percentile per-packet one-way delay: 137.141 ms

Loss rate: 0.80%

Run 10: Report of LEDBAT — Data Link



Run 1: Statistics of PCC

Start at: 2017-12-20 07:18:54

End at: 2017-12-20 07:19:24

Below is generated by plot.py at 2017-12-20 11:42:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 556.32 Mbit/s

95th percentile per-packet one-way delay: 248.700 ms

Loss rate: 2.85%

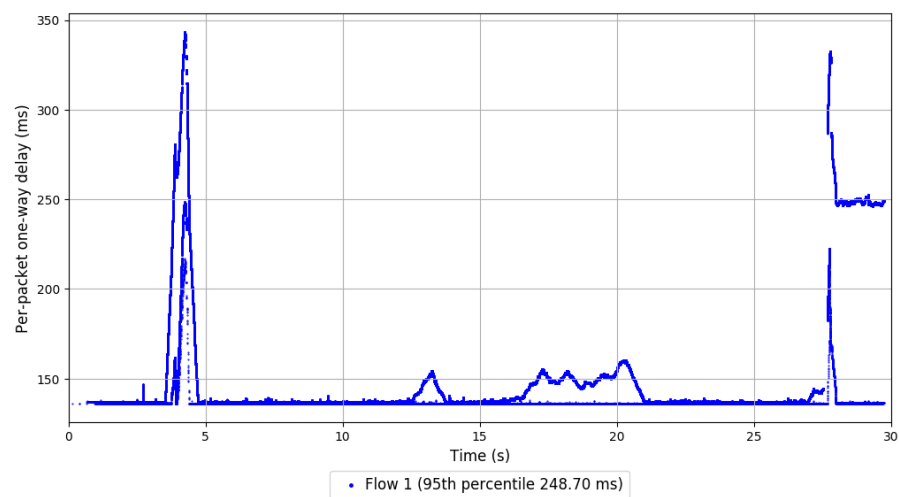
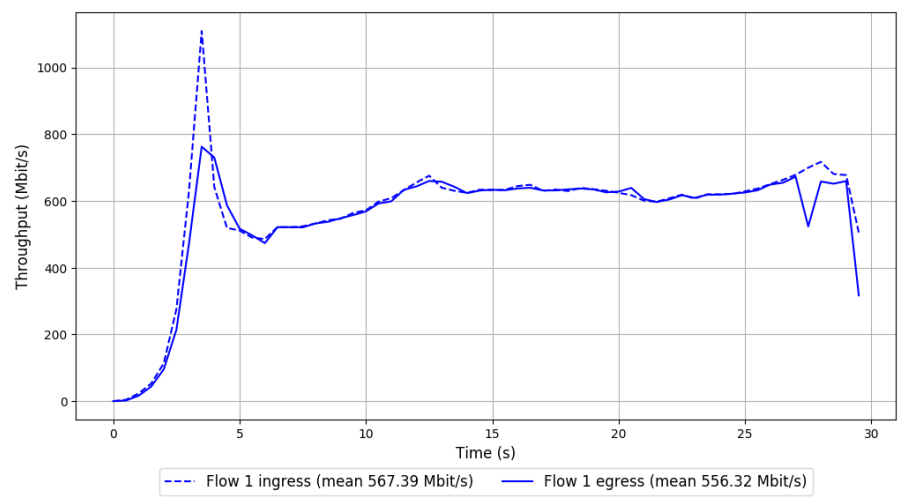
-- Flow 1:

Average throughput: 556.32 Mbit/s

95th percentile per-packet one-way delay: 248.700 ms

Loss rate: 2.85%

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-12-20 07:32:03

End at: 2017-12-20 07:32:33

Below is generated by plot.py at 2017-12-20 11:42:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 515.10 Mbit/s

95th percentile per-packet one-way delay: 273.271 ms

Loss rate: 4.62%

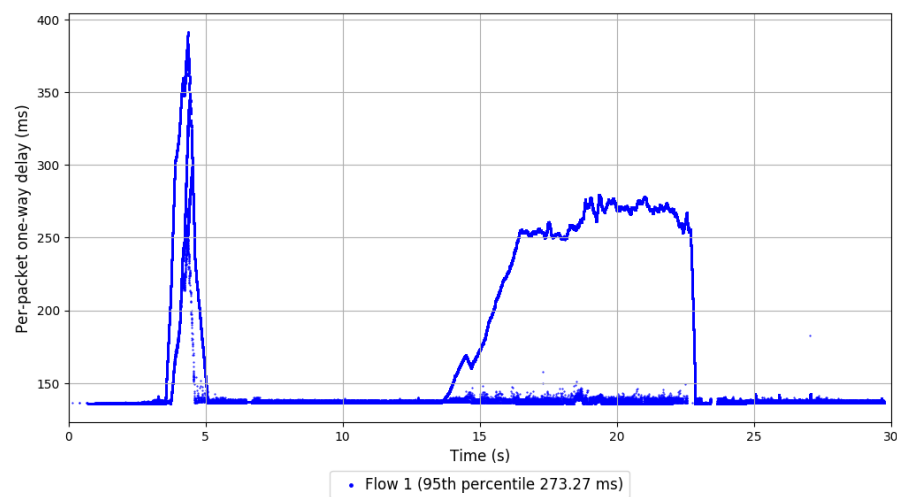
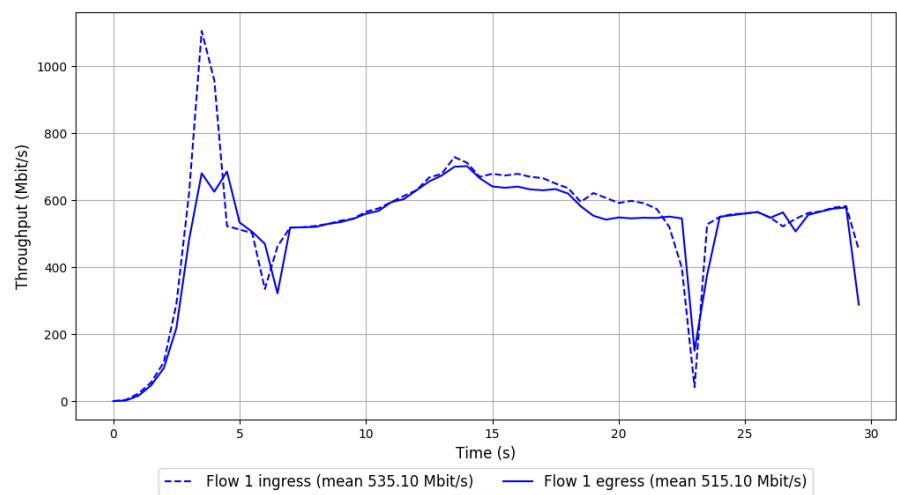
-- Flow 1:

Average throughput: 515.10 Mbit/s

95th percentile per-packet one-way delay: 273.271 ms

Loss rate: 4.62%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-12-20 07:45:18

End at: 2017-12-20 07:45:48

Below is generated by plot.py at 2017-12-20 11:42:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 537.62 Mbit/s

95th percentile per-packet one-way delay: 204.944 ms

Loss rate: 2.38%

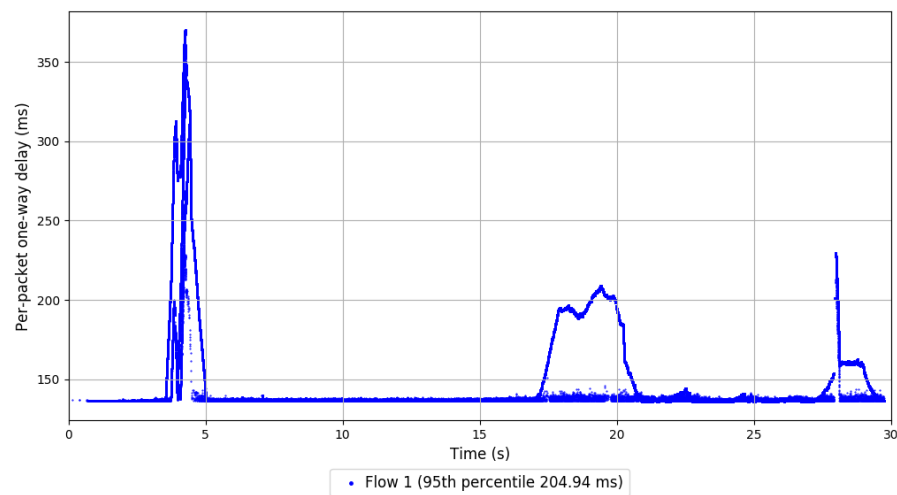
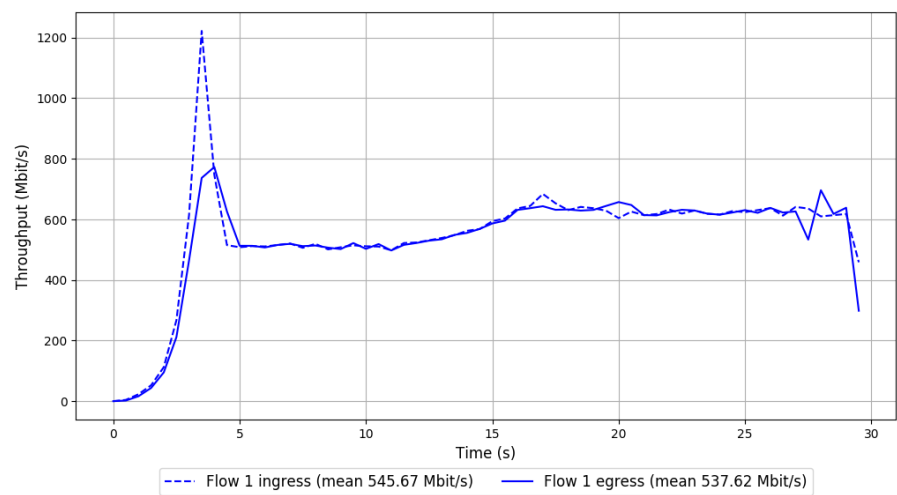
-- Flow 1:

Average throughput: 537.62 Mbit/s

95th percentile per-packet one-way delay: 204.944 ms

Loss rate: 2.38%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-12-20 07:58:21

End at: 2017-12-20 07:58:52

Below is generated by plot.py at 2017-12-20 11:42:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 520.04 Mbit/s

95th percentile per-packet one-way delay: 263.031 ms

Loss rate: 2.85%

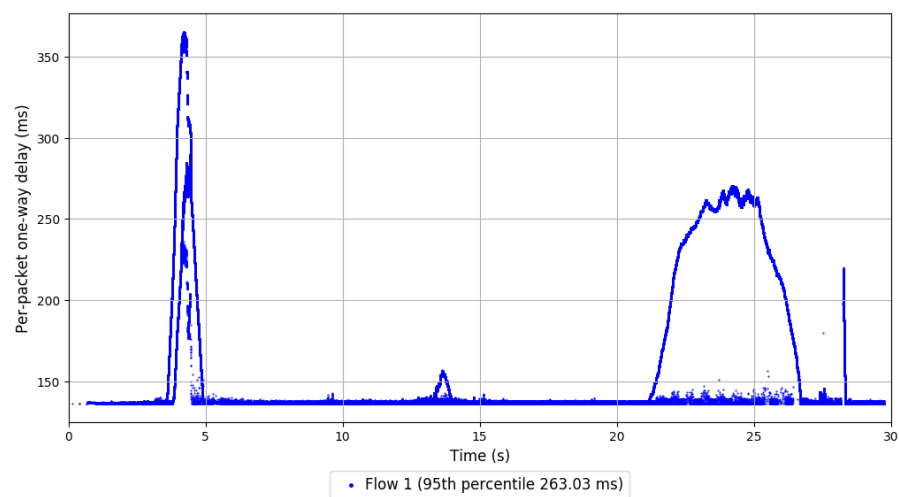
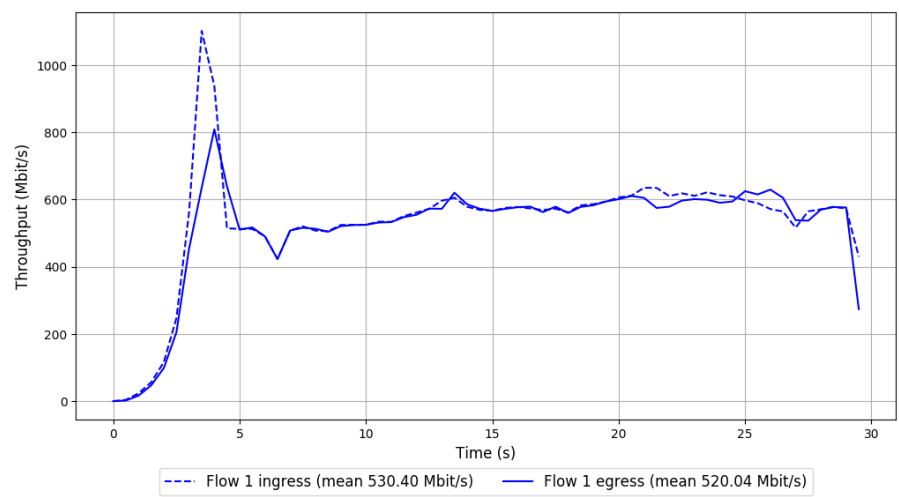
-- Flow 1:

Average throughput: 520.04 Mbit/s

95th percentile per-packet one-way delay: 263.031 ms

Loss rate: 2.85%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-12-20 08:11:00

End at: 2017-12-20 08:11:30

Below is generated by plot.py at 2017-12-20 11:42:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 511.76 Mbit/s

95th percentile per-packet one-way delay: 203.455 ms

Loss rate: 3.73%

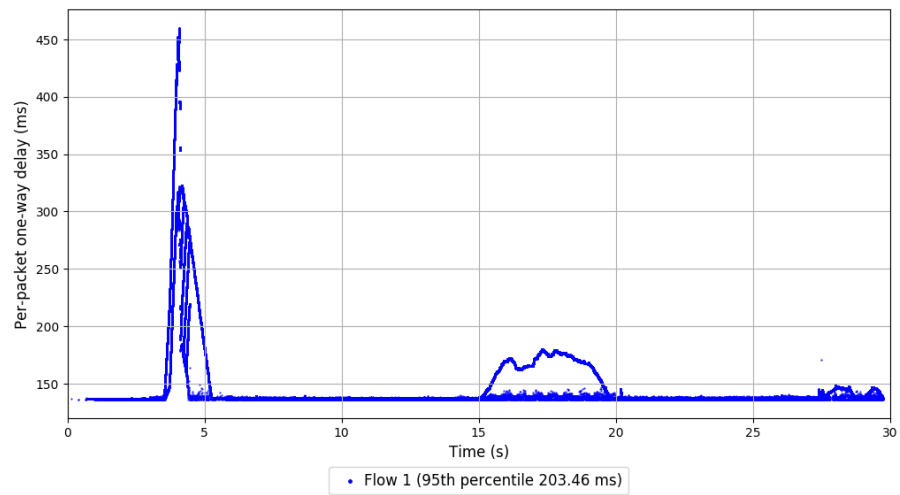
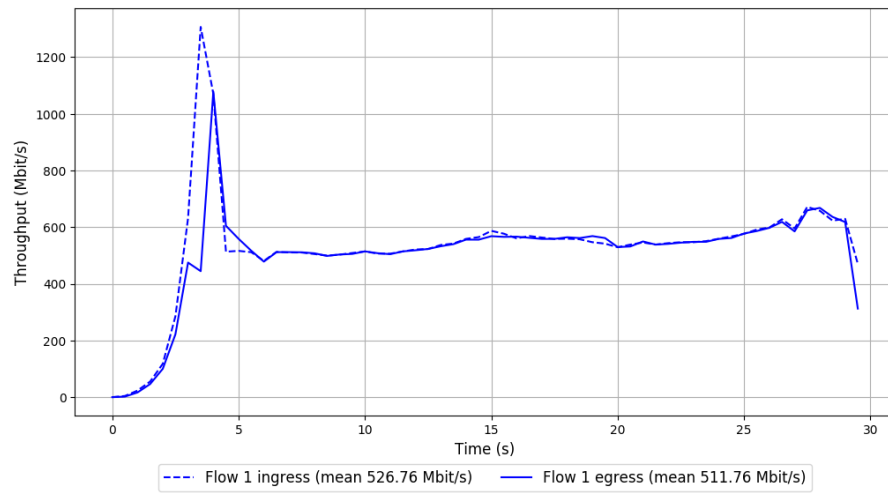
-- Flow 1:

Average throughput: 511.76 Mbit/s

95th percentile per-packet one-way delay: 203.455 ms

Loss rate: 3.73%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-12-20 08:24:10

End at: 2017-12-20 08:24:40

Below is generated by plot.py at 2017-12-20 11:43:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 563.59 Mbit/s

95th percentile per-packet one-way delay: 206.212 ms

Loss rate: 2.69%

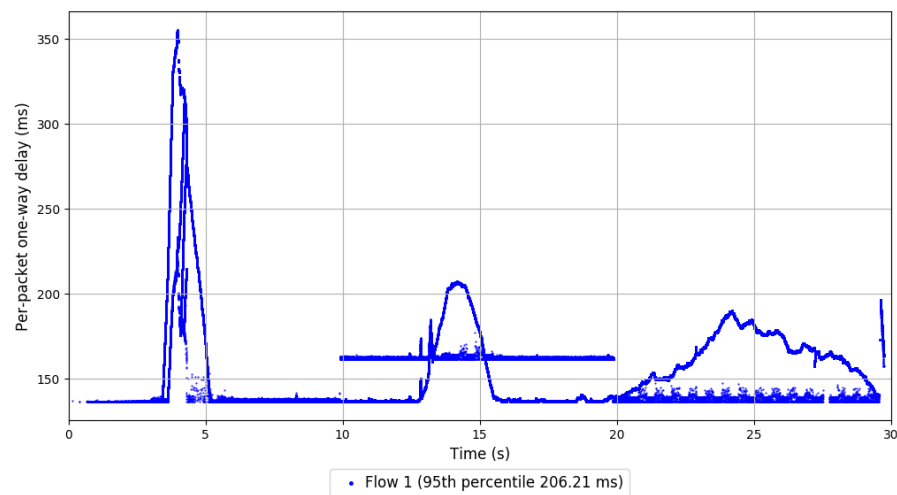
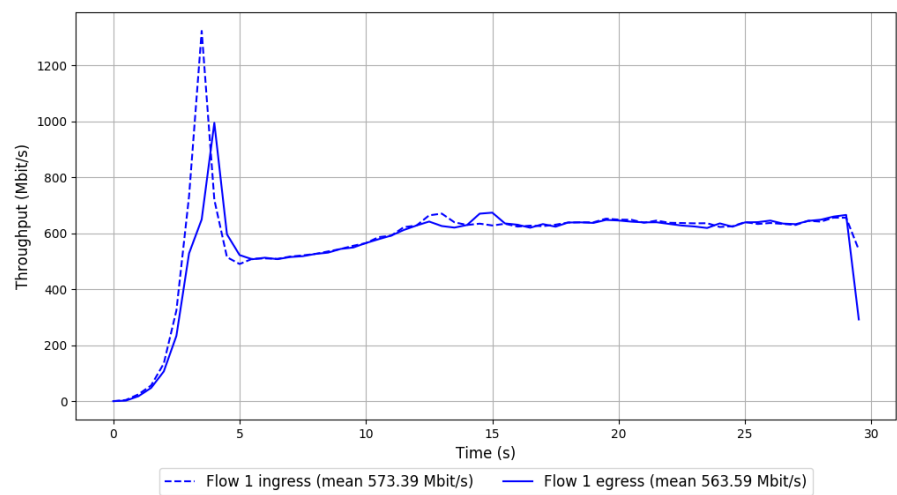
-- Flow 1:

Average throughput: 563.59 Mbit/s

95th percentile per-packet one-way delay: 206.212 ms

Loss rate: 2.69%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-12-20 08:37:24

End at: 2017-12-20 08:37:54

Below is generated by plot.py at 2017-12-20 11:43:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 511.69 Mbit/s

95th percentile per-packet one-way delay: 196.591 ms

Loss rate: 3.04%

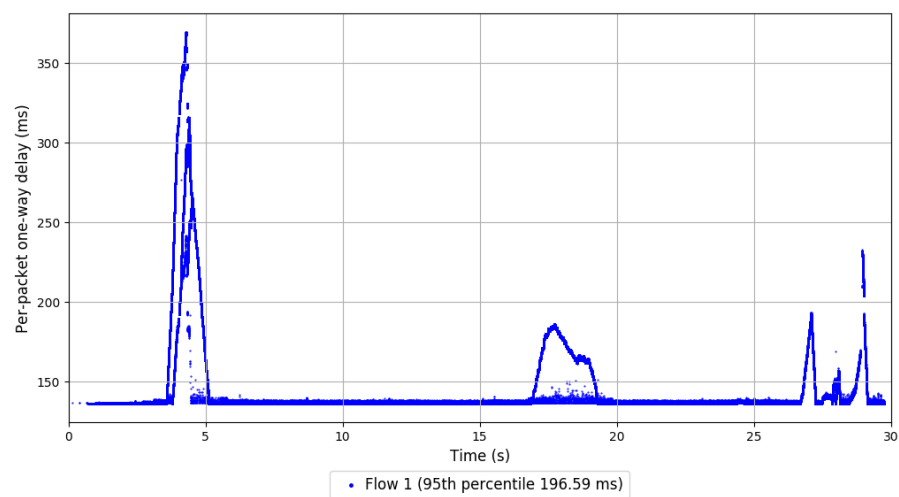
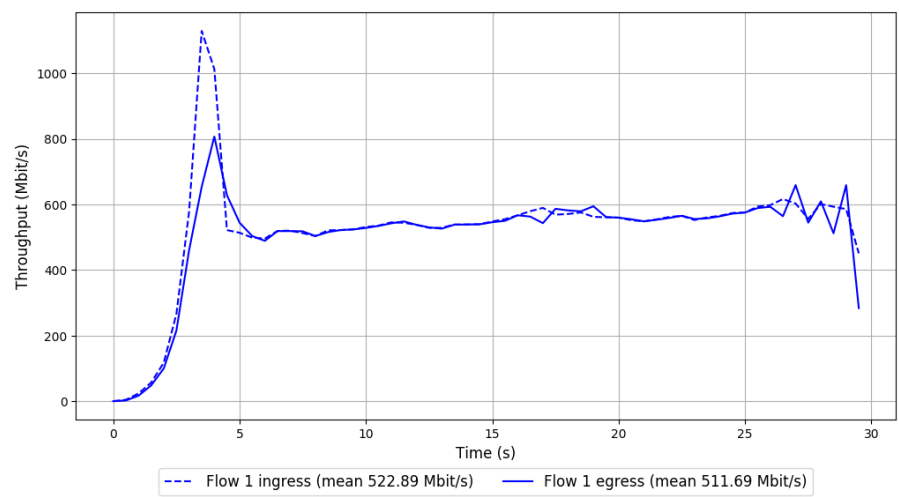
-- Flow 1:

Average throughput: 511.69 Mbit/s

95th percentile per-packet one-way delay: 196.591 ms

Loss rate: 3.04%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-12-20 08:50:22

End at: 2017-12-20 08:50:52

Below is generated by plot.py at 2017-12-20 11:43:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 500.78 Mbit/s

95th percentile per-packet one-way delay: 298.639 ms

Loss rate: 3.90%

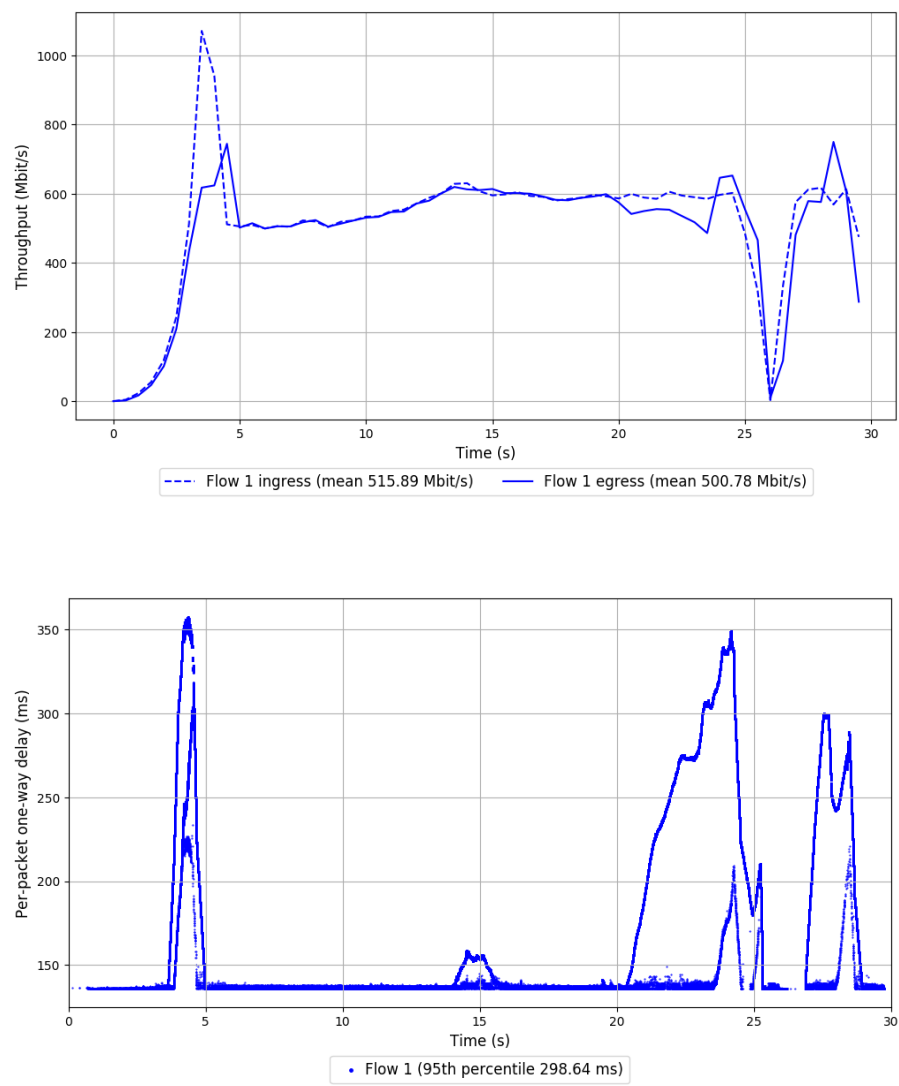
-- Flow 1:

Average throughput: 500.78 Mbit/s

95th percentile per-packet one-way delay: 298.639 ms

Loss rate: 3.90%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-12-20 09:03:07

End at: 2017-12-20 09:03:37

Below is generated by plot.py at 2017-12-20 11:51:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 518.92 Mbit/s

95th percentile per-packet one-way delay: 246.016 ms

Loss rate: 2.81%

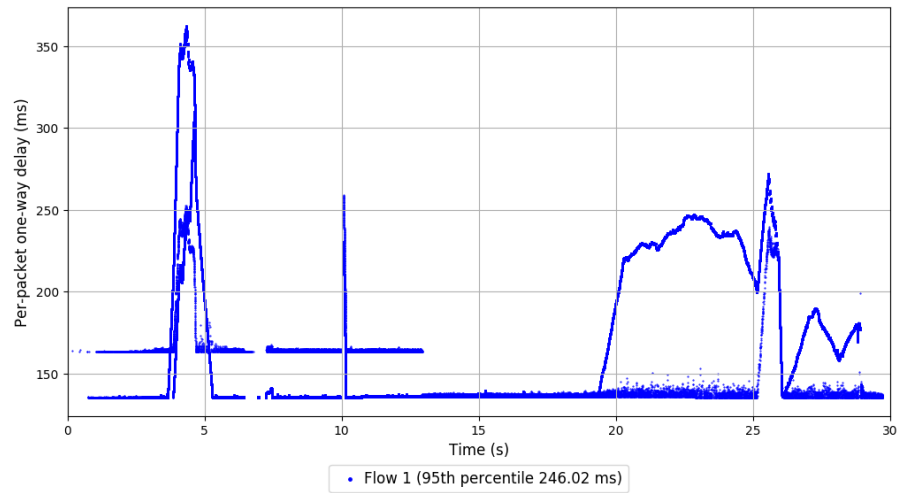
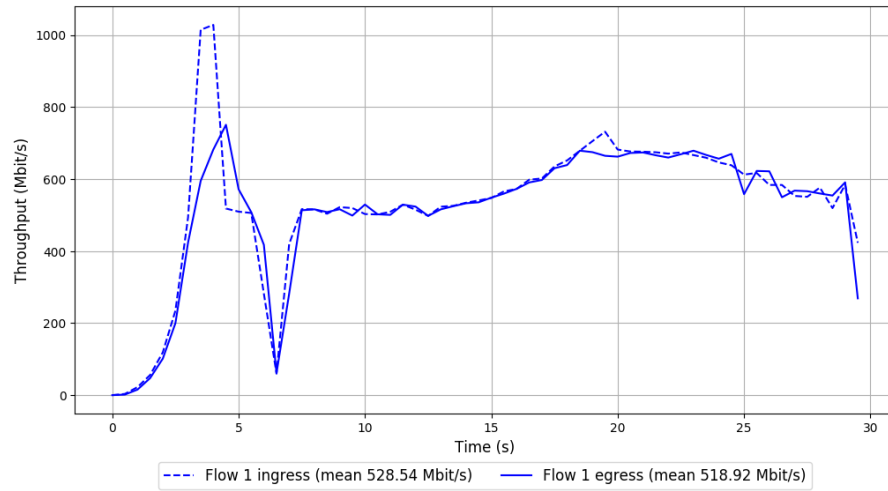
-- Flow 1:

Average throughput: 518.92 Mbit/s

95th percentile per-packet one-way delay: 246.016 ms

Loss rate: 2.81%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-12-20 09:16:04

End at: 2017-12-20 09:16:34

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 532.64 Mbit/s

95th percentile per-packet one-way delay: 260.453 ms

Loss rate: 3.05%

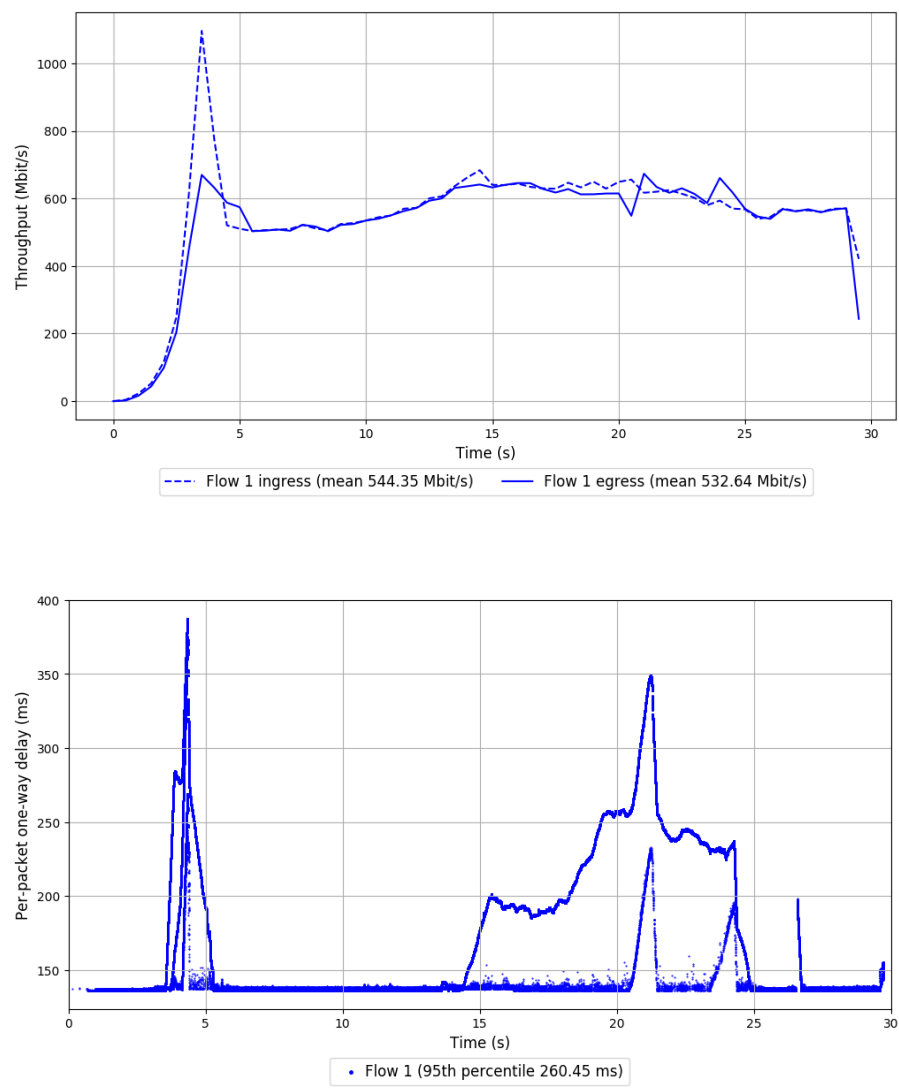
-- Flow 1:

Average throughput: 532.64 Mbit/s

95th percentile per-packet one-way delay: 260.453 ms

Loss rate: 3.05%

Run 10: Report of PCC — Data Link

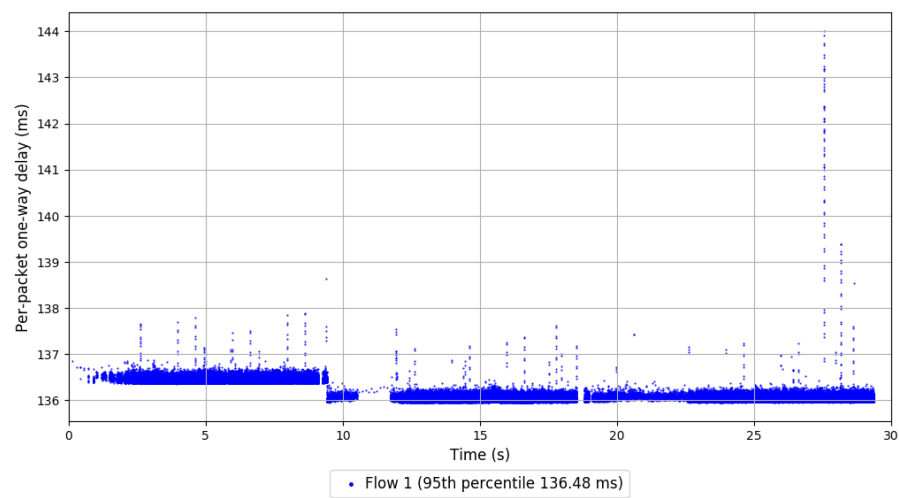
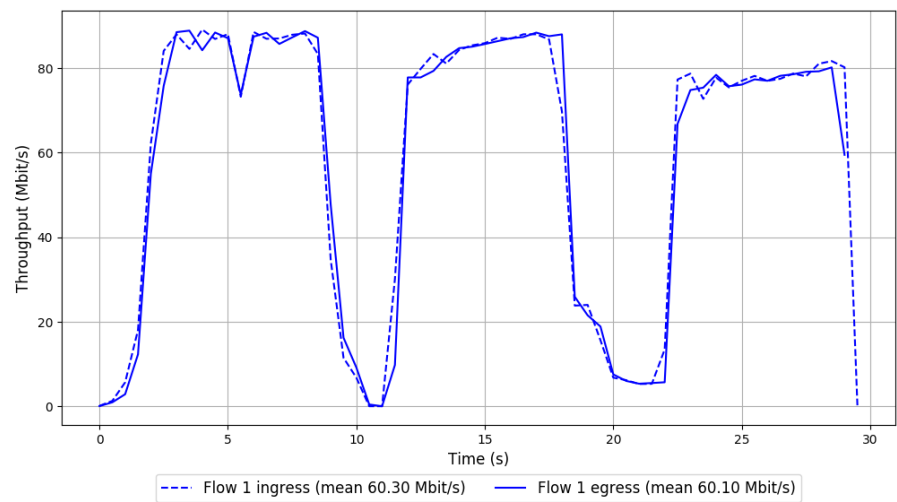


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-12-20 07:16:40
End at: 2017-12-20 07:17:10

# Below is generated by plot.py at 2017-12-20 11:52:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.10 Mbit/s
95th percentile per-packet one-way delay: 136.477 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 60.10 Mbit/s
95th percentile per-packet one-way delay: 136.477 ms
Loss rate: 1.25%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-12-20 07:29:49

End at: 2017-12-20 07:30:19

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 63.62 Mbit/s

95th percentile per-packet one-way delay: 136.476 ms

Loss rate: 1.66%

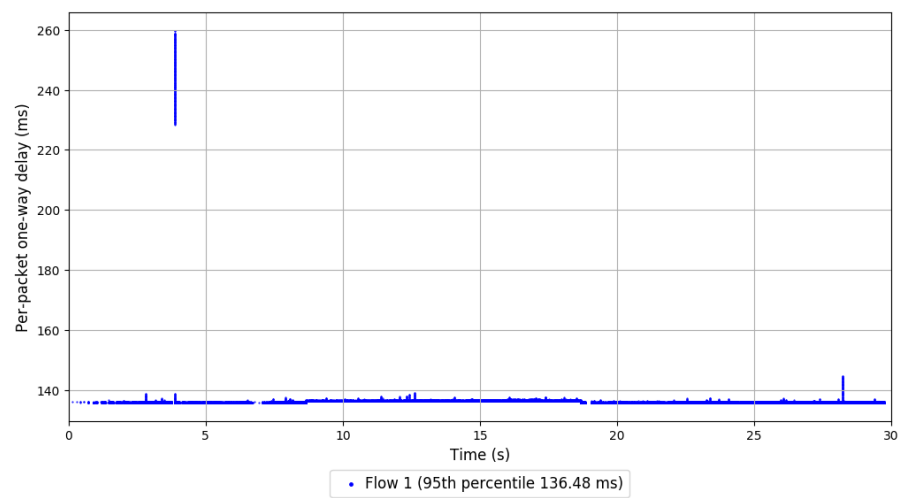
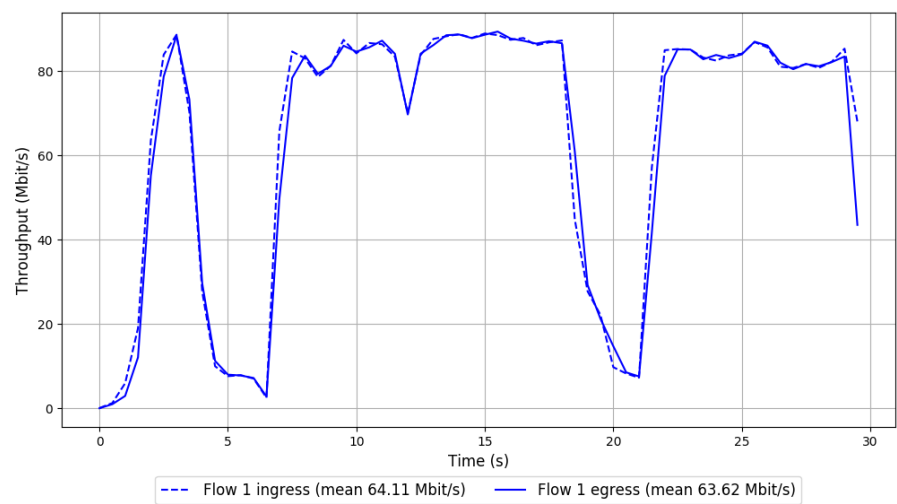
-- Flow 1:

Average throughput: 63.62 Mbit/s

95th percentile per-packet one-way delay: 136.476 ms

Loss rate: 1.66%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-12-20 07:43:05

End at: 2017-12-20 07:43:35

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 52.63 Mbit/s

95th percentile per-packet one-way delay: 161.361 ms

Loss rate: 1.57%

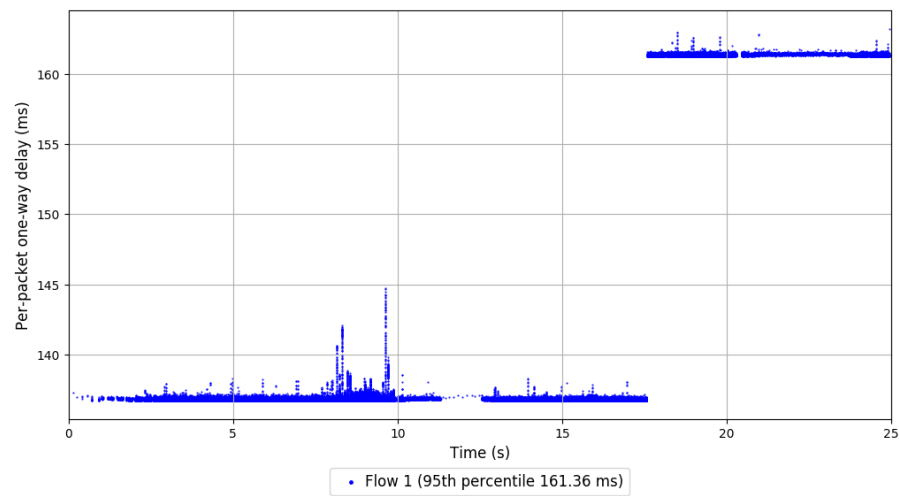
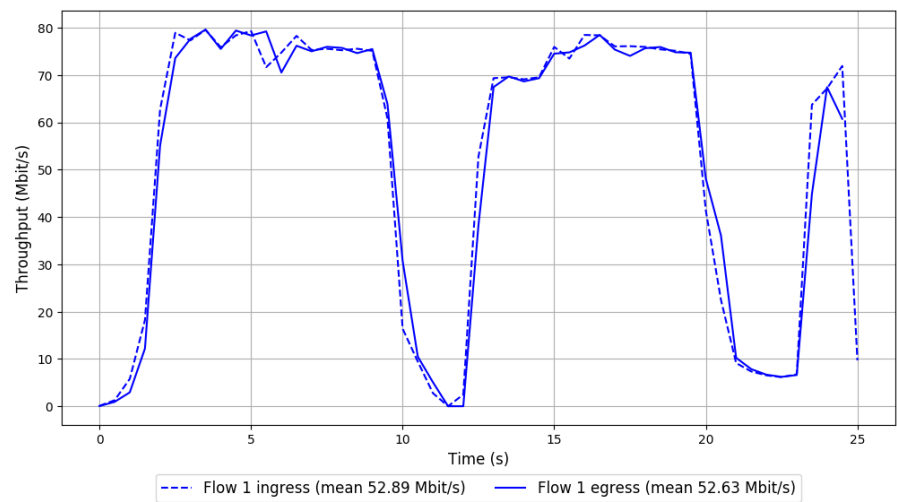
-- Flow 1:

Average throughput: 52.63 Mbit/s

95th percentile per-packet one-way delay: 161.361 ms

Loss rate: 1.57%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-12-20 07:56:11

End at: 2017-12-20 07:56:41

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 43.52 Mbit/s

95th percentile per-packet one-way delay: 136.636 ms

Loss rate: 1.46%

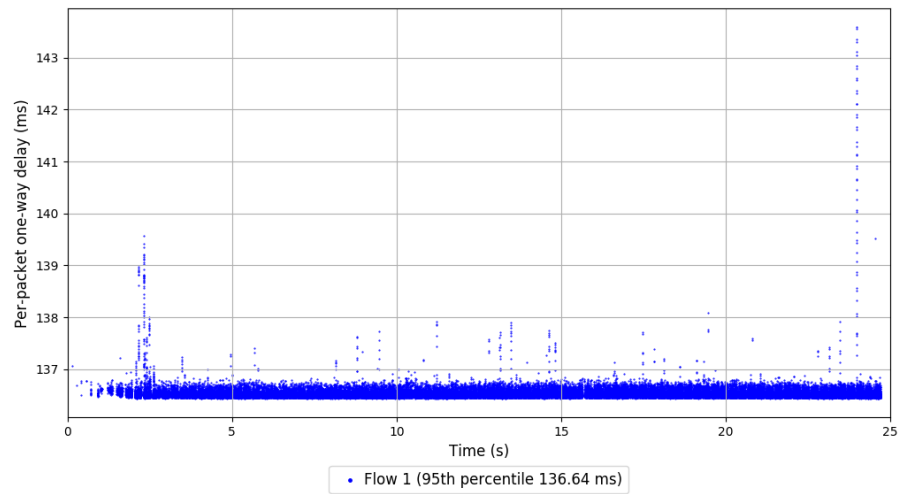
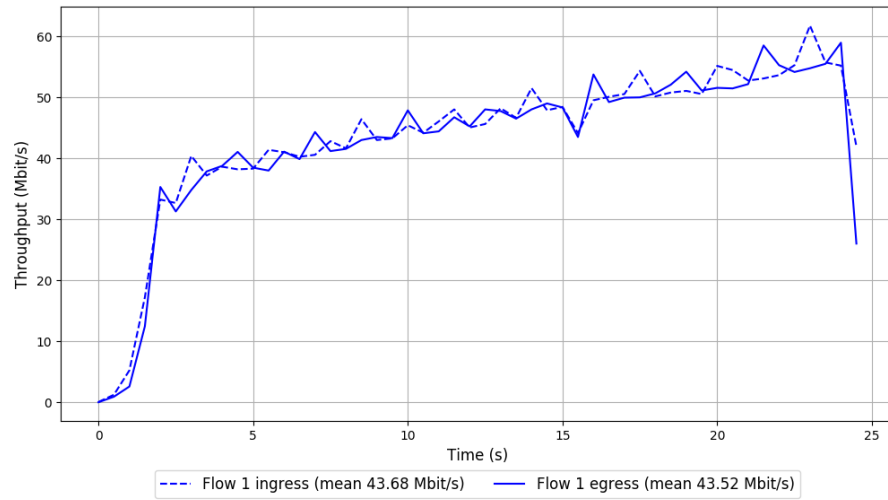
-- Flow 1:

Average throughput: 43.52 Mbit/s

95th percentile per-packet one-way delay: 136.636 ms

Loss rate: 1.46%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-12-20 08:08:46

End at: 2017-12-20 08:09:16

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 57.35 Mbit/s

95th percentile per-packet one-way delay: 136.398 ms

Loss rate: 1.11%

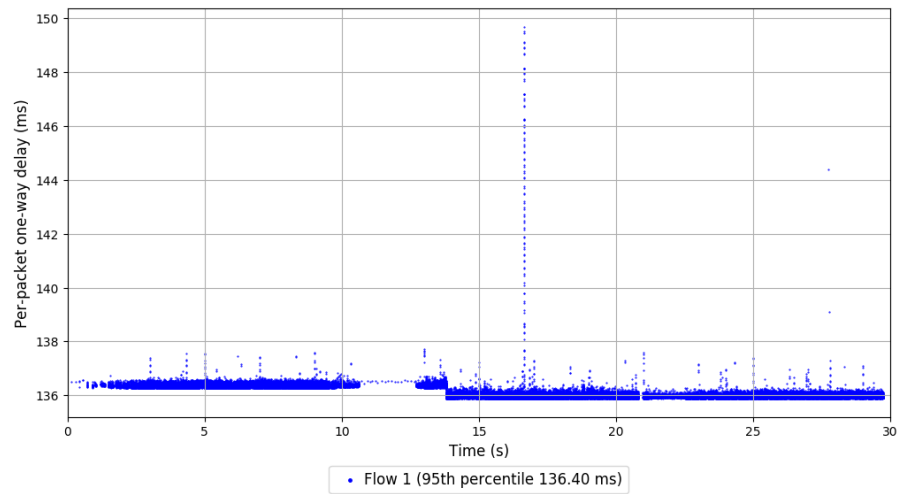
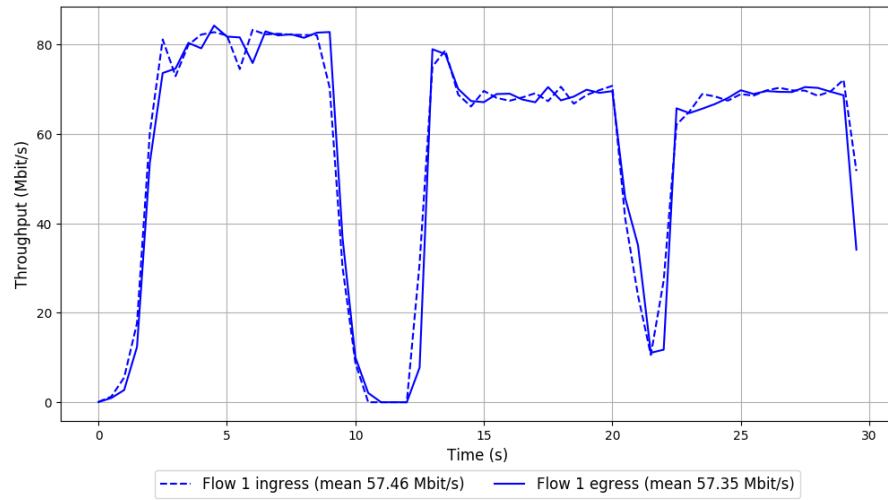
-- Flow 1:

Average throughput: 57.35 Mbit/s

95th percentile per-packet one-way delay: 136.398 ms

Loss rate: 1.11%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-12-20 08:21:55

End at: 2017-12-20 08:22:25

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 69.13 Mbit/s

95th percentile per-packet one-way delay: 136.558 ms

Loss rate: 1.15%

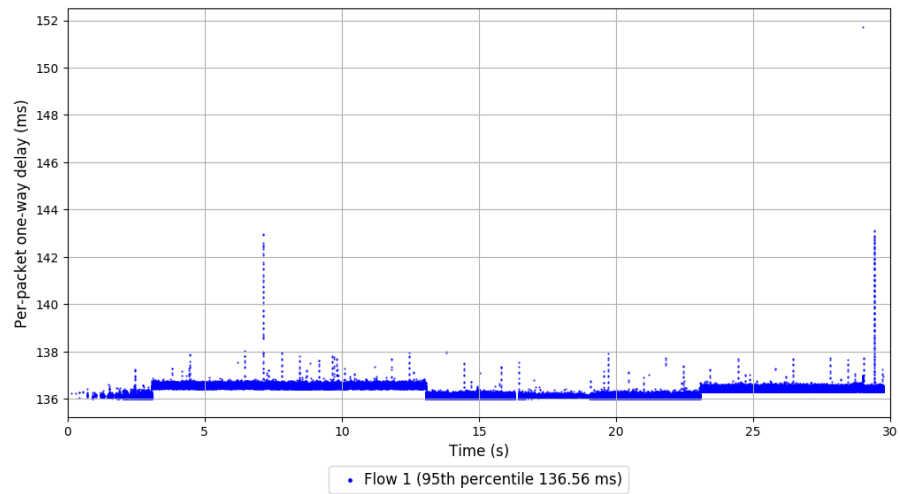
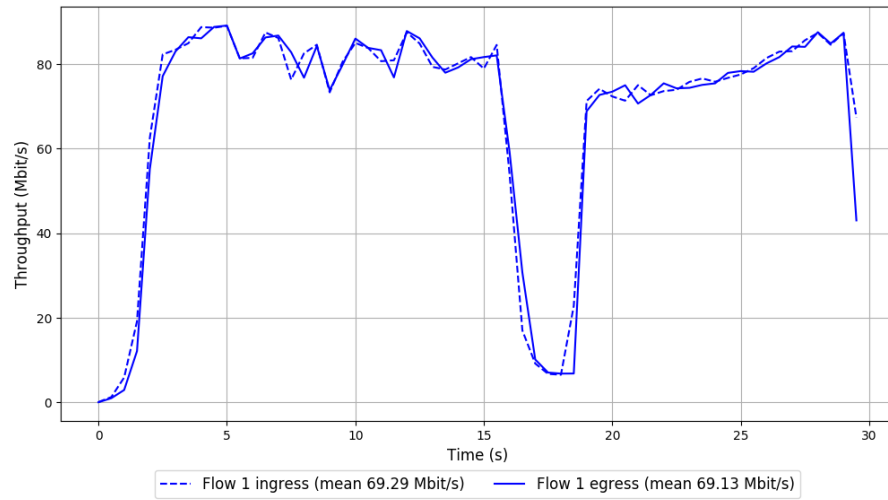
-- Flow 1:

Average throughput: 69.13 Mbit/s

95th percentile per-packet one-way delay: 136.558 ms

Loss rate: 1.15%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-12-20 08:35:07

End at: 2017-12-20 08:35:37

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.60 Mbit/s

95th percentile per-packet one-way delay: 136.550 ms

Loss rate: 1.21%

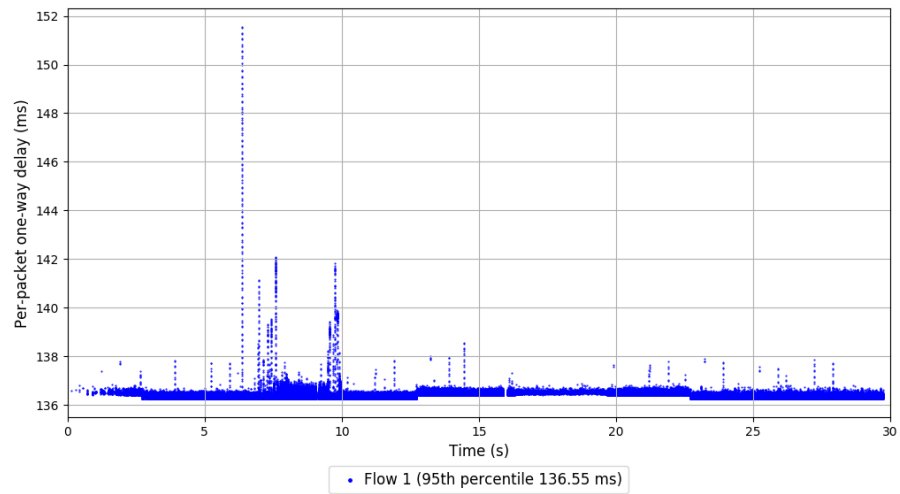
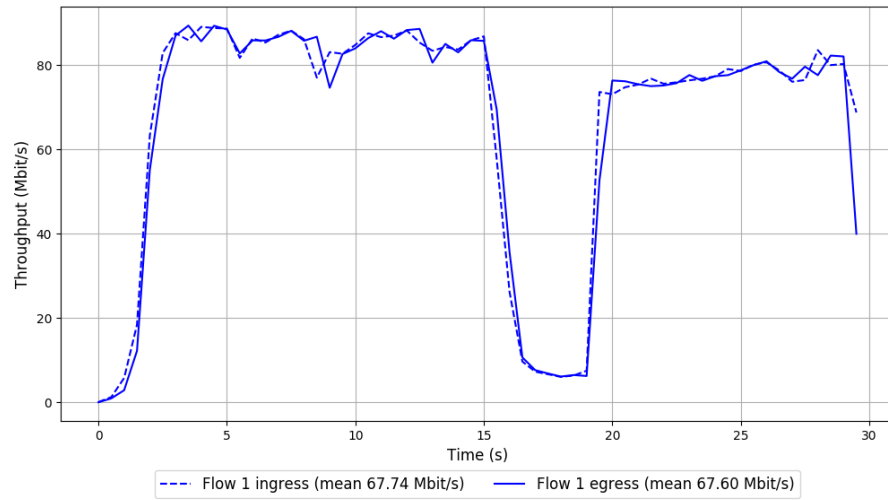
-- Flow 1:

Average throughput: 67.60 Mbit/s

95th percentile per-packet one-way delay: 136.550 ms

Loss rate: 1.21%

Run 7: Report of QUIC Cubic — Data Link

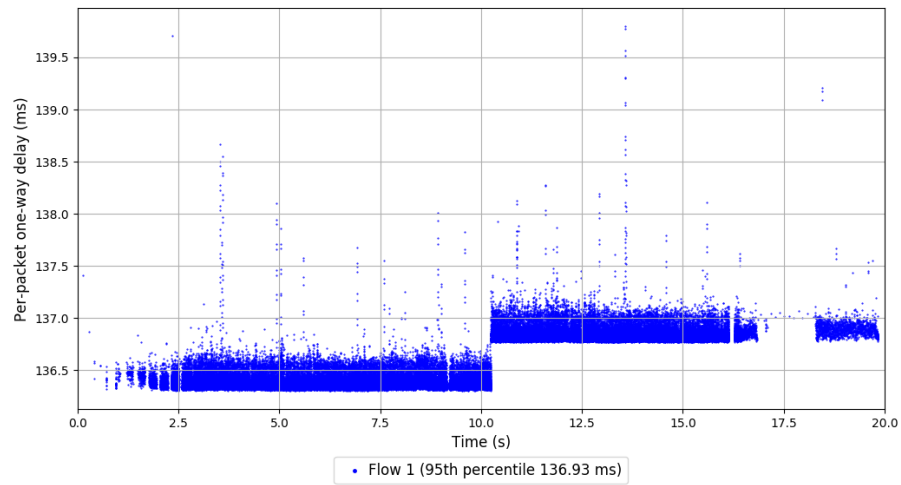
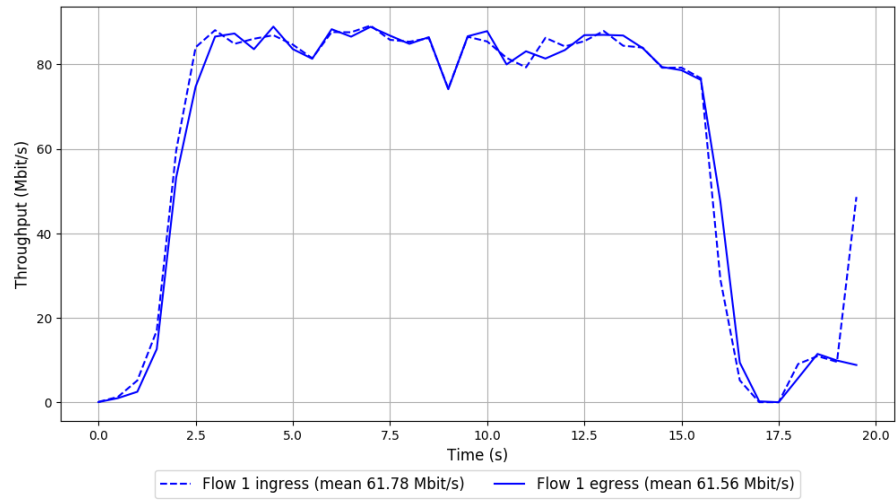


Run 8: Statistics of QUIC Cubic

Start at: 2017-12-20 08:48:08

End at: 2017-12-20 08:48:38

Run 8: Report of QUIC Cubic — Data Link

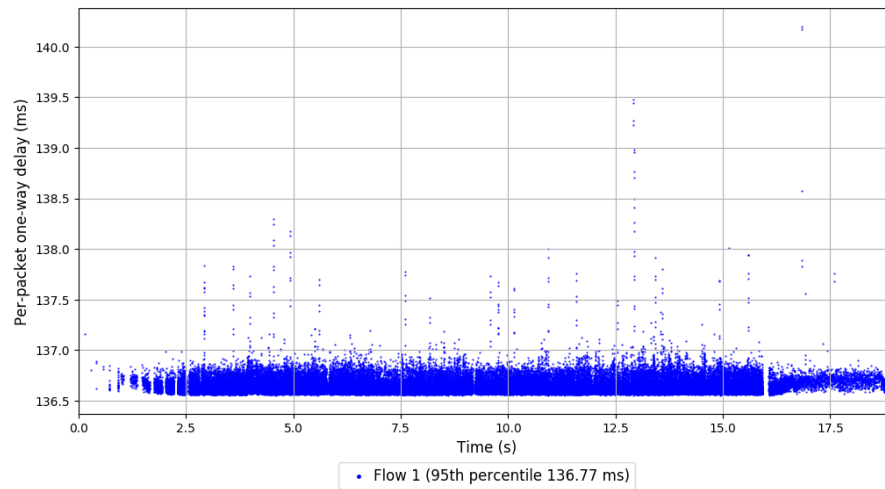
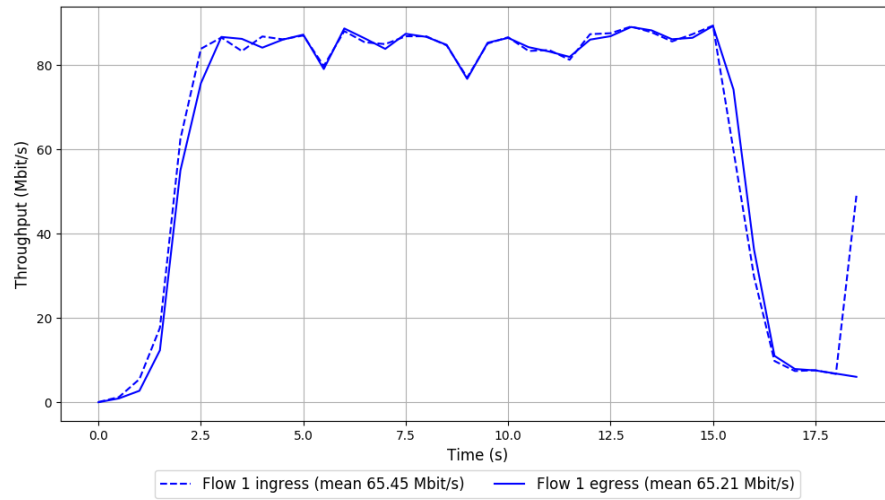


Run 9: Statistics of QUIC Cubic

Start at: 2017-12-20 09:00:55

End at: 2017-12-20 09:01:25

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2017-12-20 09:13:50

End at: 2017-12-20 09:14:20

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 73.29 Mbit/s

95th percentile per-packet one-way delay: 136.032 ms

Loss rate: 1.09%

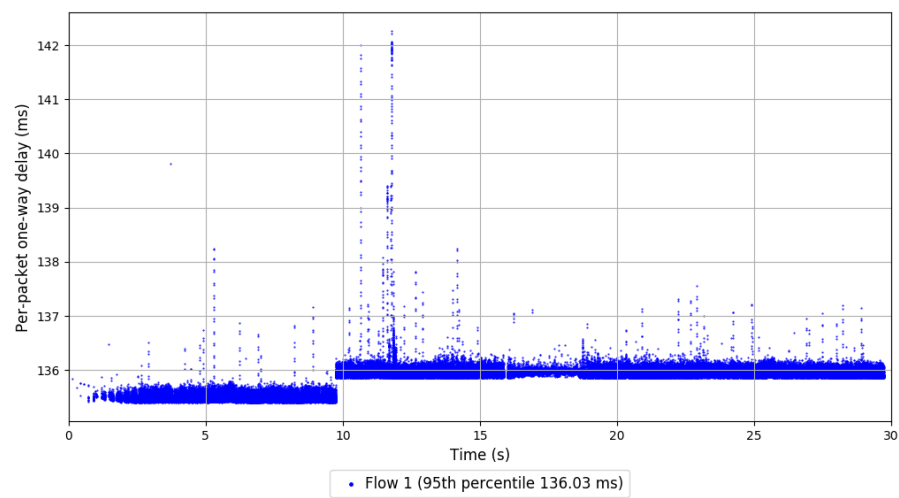
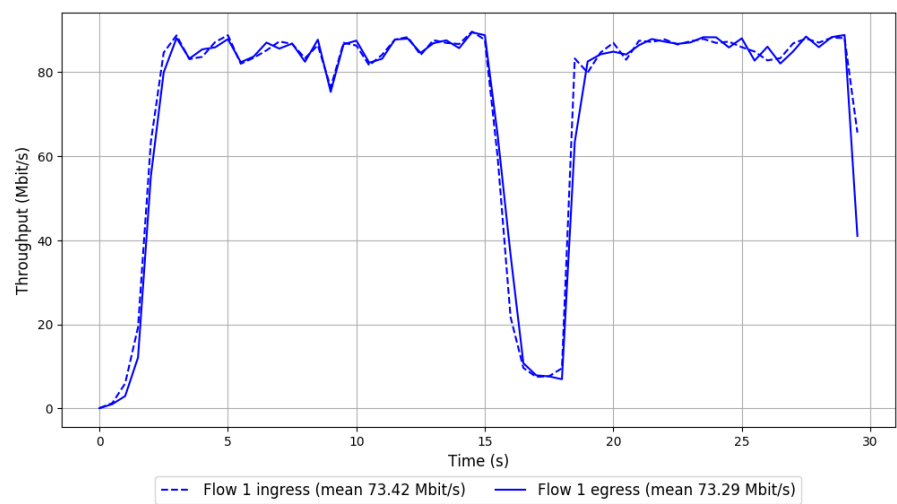
-- Flow 1:

Average throughput: 73.29 Mbit/s

95th percentile per-packet one-way delay: 136.032 ms

Loss rate: 1.09%

Run 10: Report of QUIC Cubic — Data Link

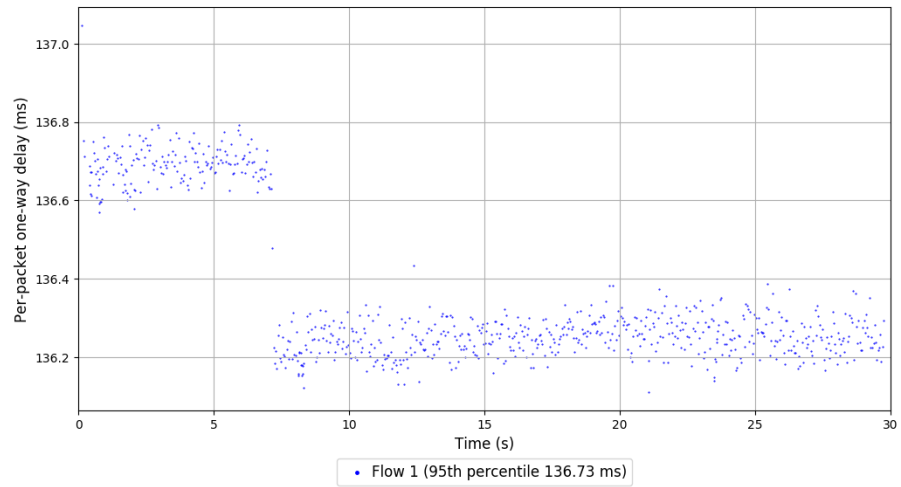
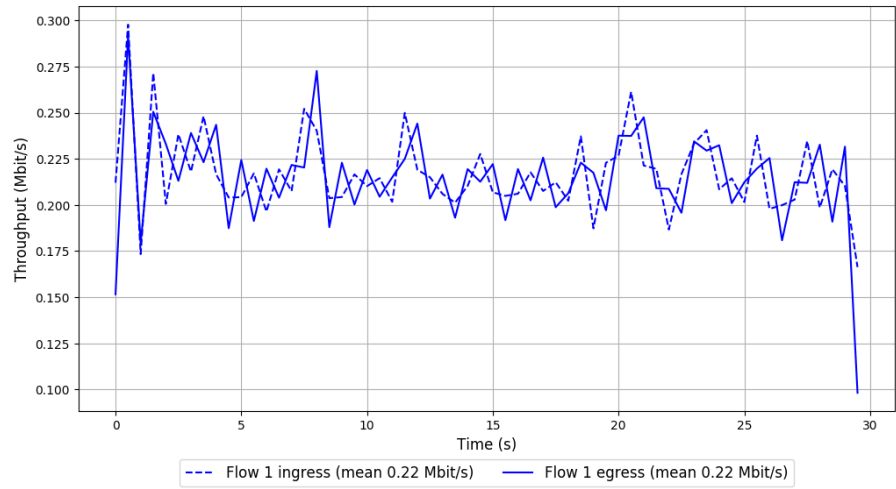


```
Run 1: Statistics of SCReAM

Start at: 2017-12-20 07:11:41
End at: 2017-12-20 07:12:11

# Below is generated by plot.py at 2017-12-20 11:52:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.728 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.728 ms
Loss rate: 0.90%
```

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2017-12-20 07:24:45

End at: 2017-12-20 07:25:15

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.971 ms

Loss rate: 0.89%

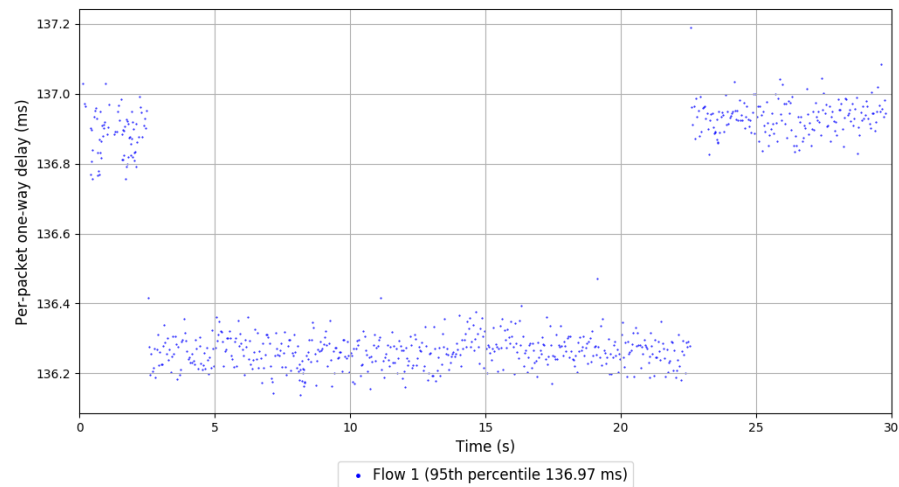
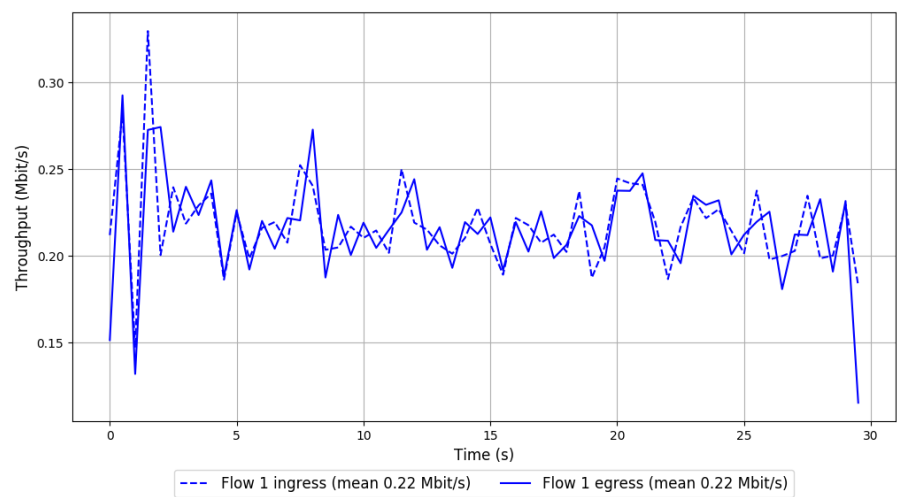
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.971 ms

Loss rate: 0.89%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-12-20 07:38:01

End at: 2017-12-20 07:38:31

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.931 ms

Loss rate: 0.90%

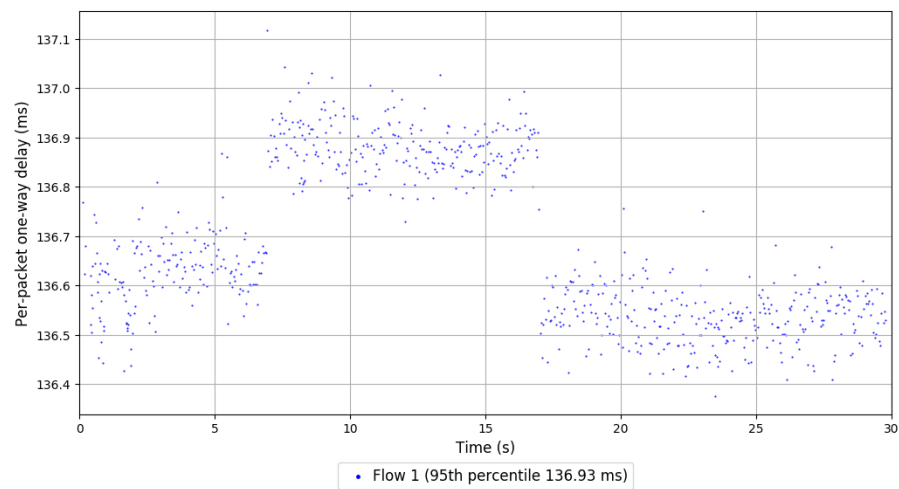
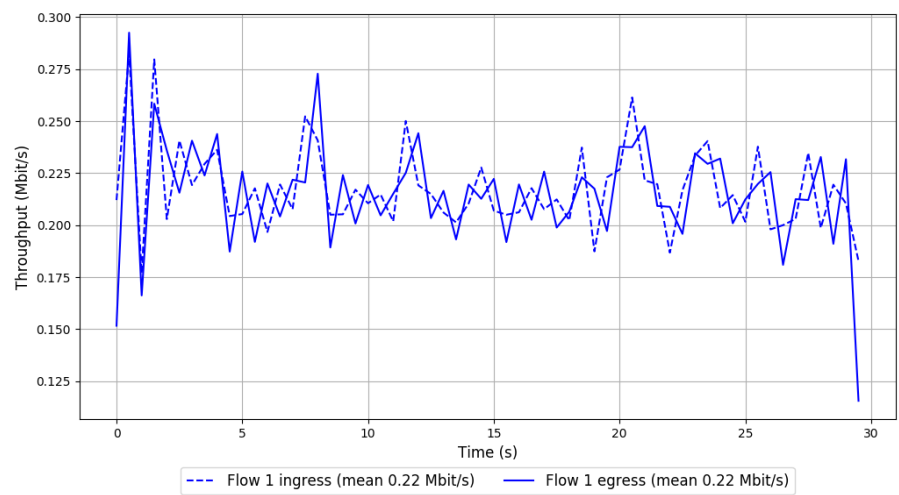
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.931 ms

Loss rate: 0.90%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-12-20 07:51:06

End at: 2017-12-20 07:51:36

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.191 ms

Loss rate: 0.89%

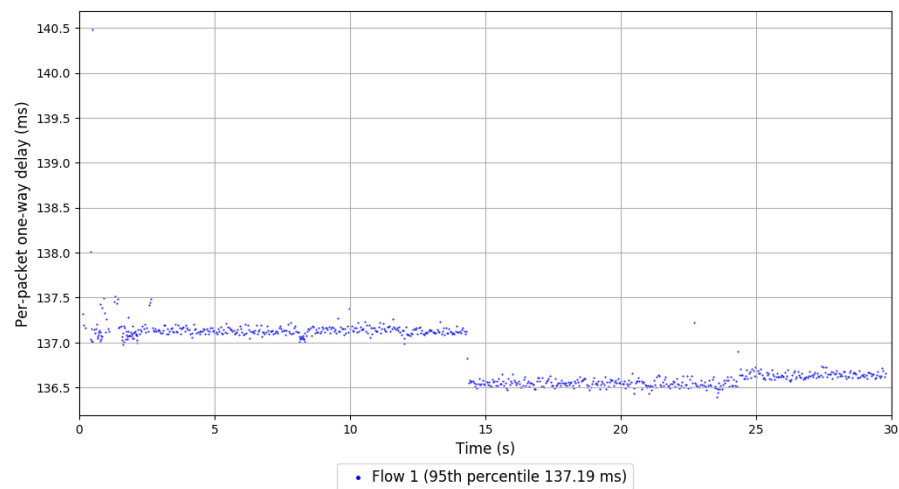
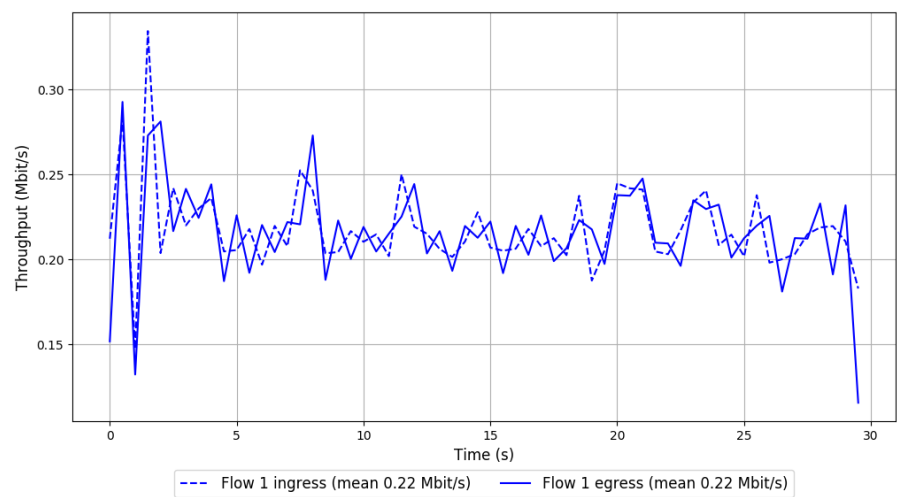
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.191 ms

Loss rate: 0.89%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-12-20 08:04:07

End at: 2017-12-20 08:04:37

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.806 ms

Loss rate: 0.89%

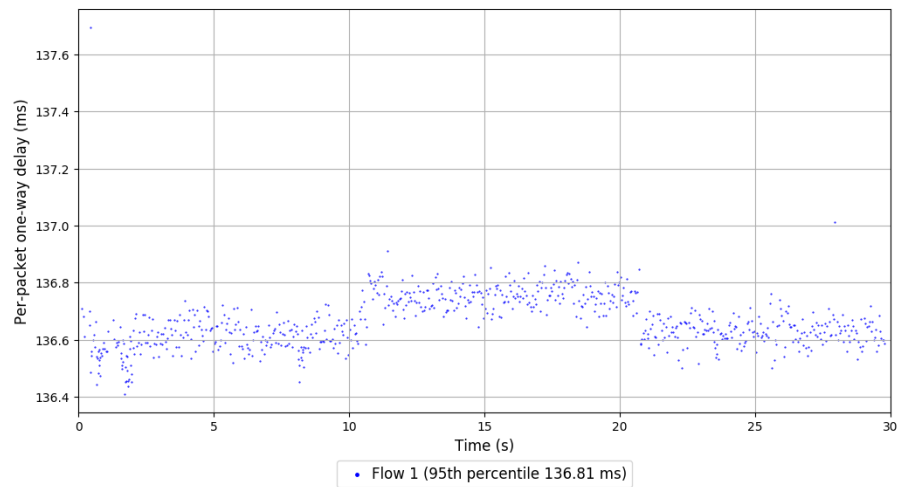
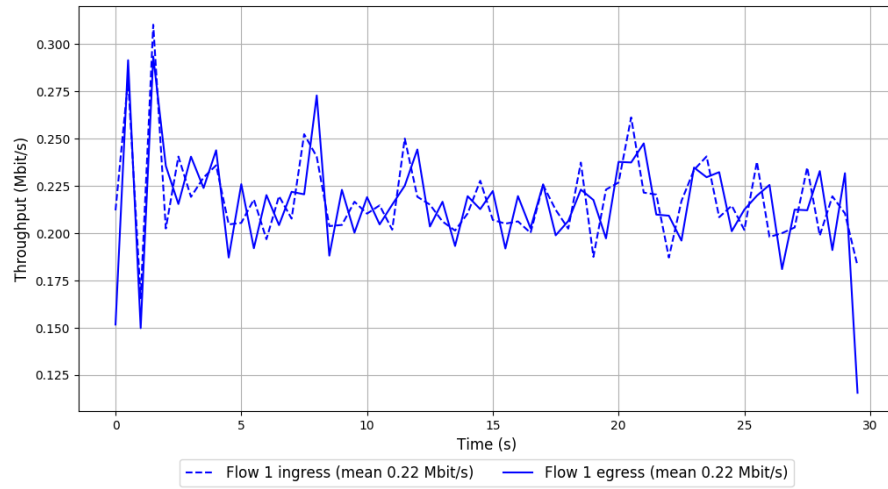
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.806 ms

Loss rate: 0.89%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-12-20 08:16:52

End at: 2017-12-20 08:17:22

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.086 ms

Loss rate: 0.89%

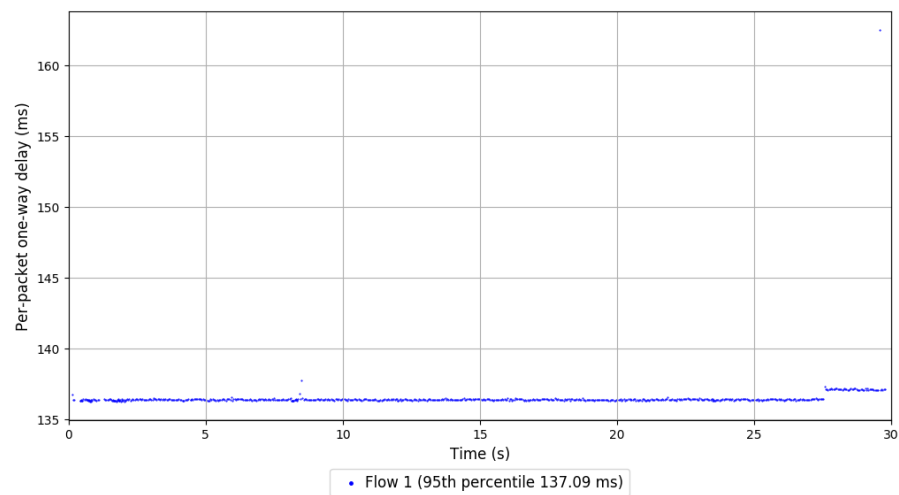
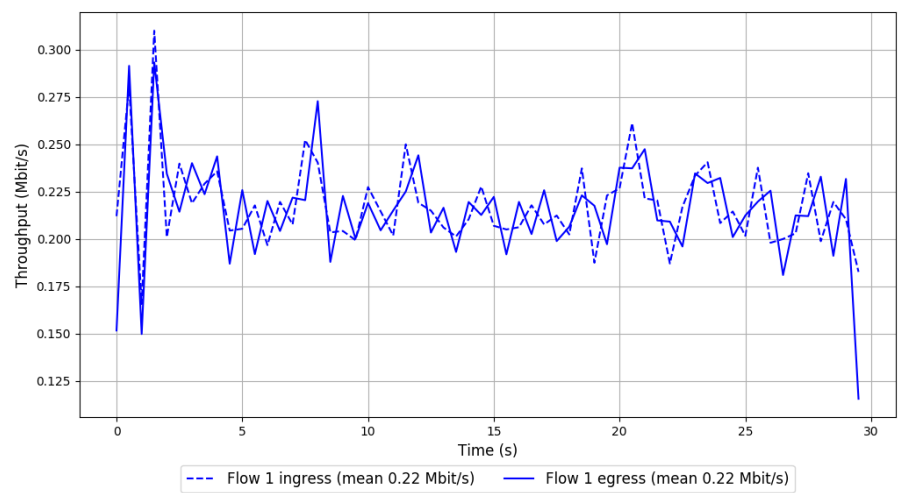
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.086 ms

Loss rate: 0.89%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2017-12-20 08:30:09

End at: 2017-12-20 08:30:39

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 136.813 ms

Loss rate: 0.89%

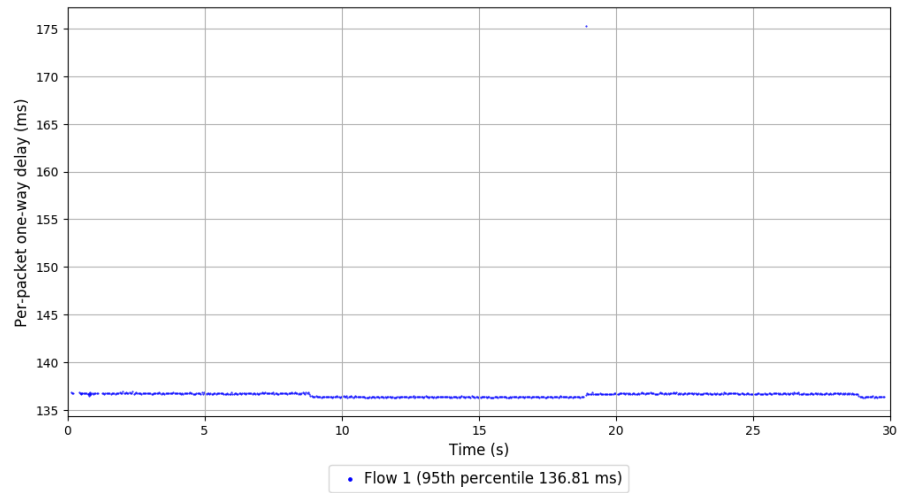
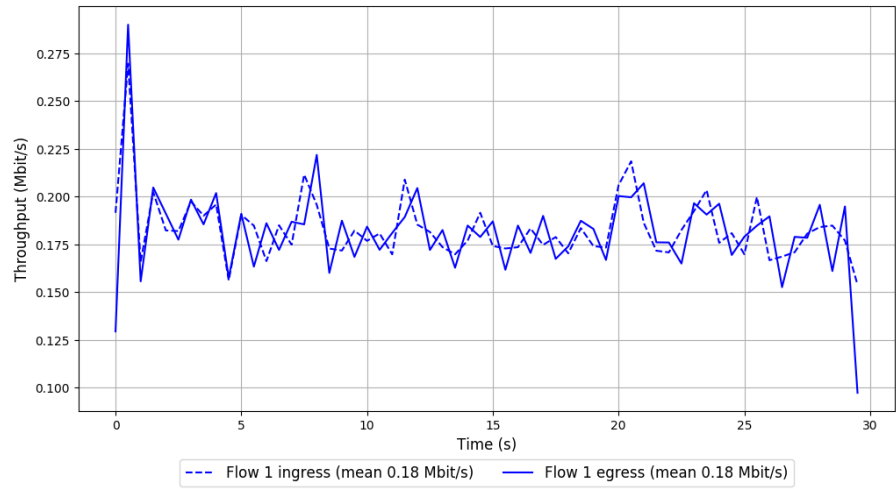
-- Flow 1:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 136.813 ms

Loss rate: 0.89%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-12-20 08:43:05

End at: 2017-12-20 08:43:35

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 136.847 ms

Loss rate: 0.89%

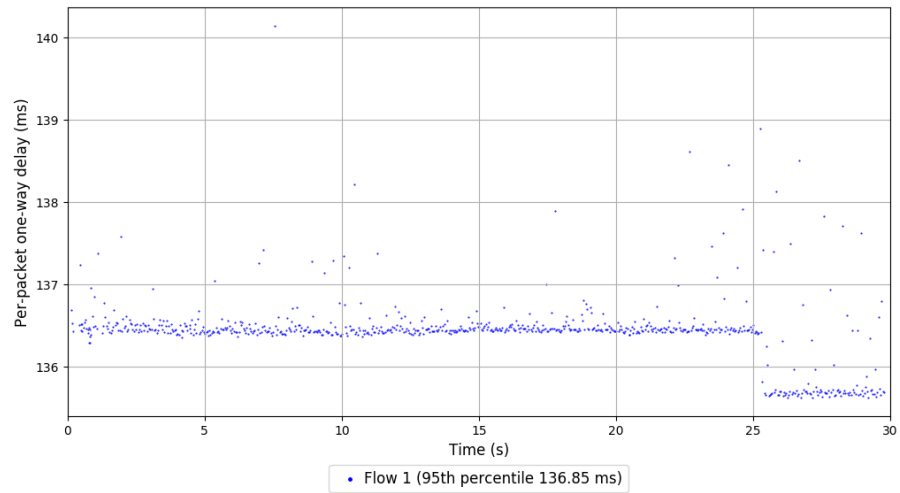
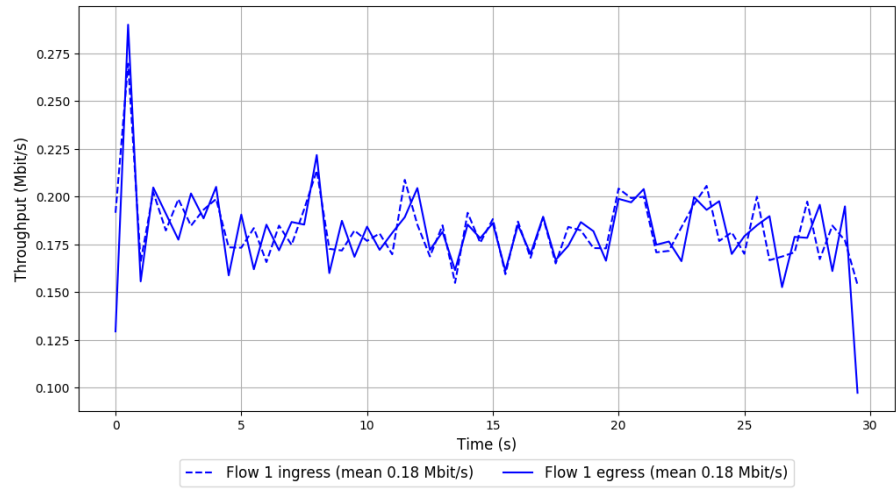
-- Flow 1:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 136.847 ms

Loss rate: 0.89%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-12-20 08:56:11

End at: 2017-12-20 08:56:41

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.565 ms

Loss rate: 0.90%

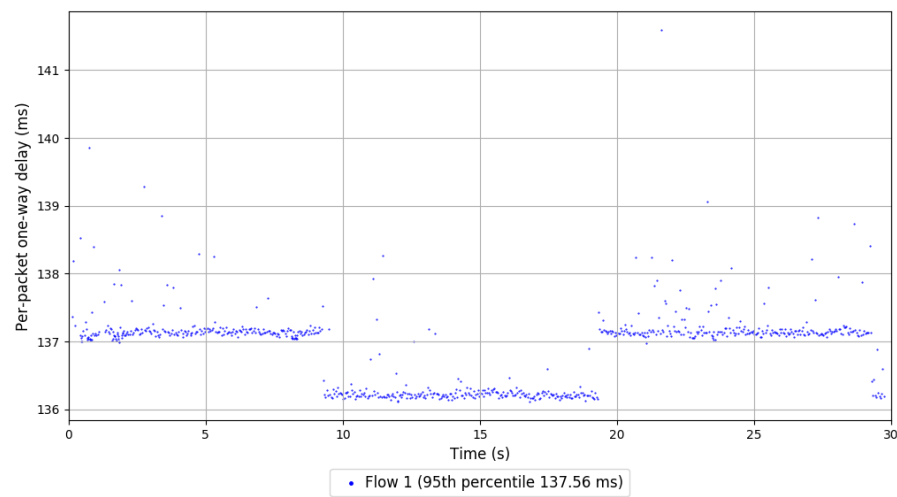
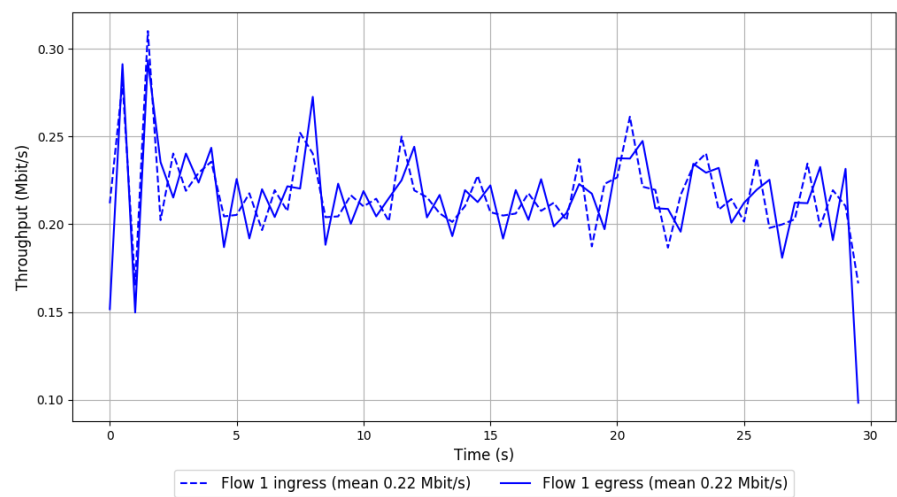
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.565 ms

Loss rate: 0.90%

Run 9: Report of SCRaM — Data Link



Run 10: Statistics of SReAM

Start at: 2017-12-20 09:08:56

End at: 2017-12-20 09:09:26

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.218 ms

Loss rate: 0.89%

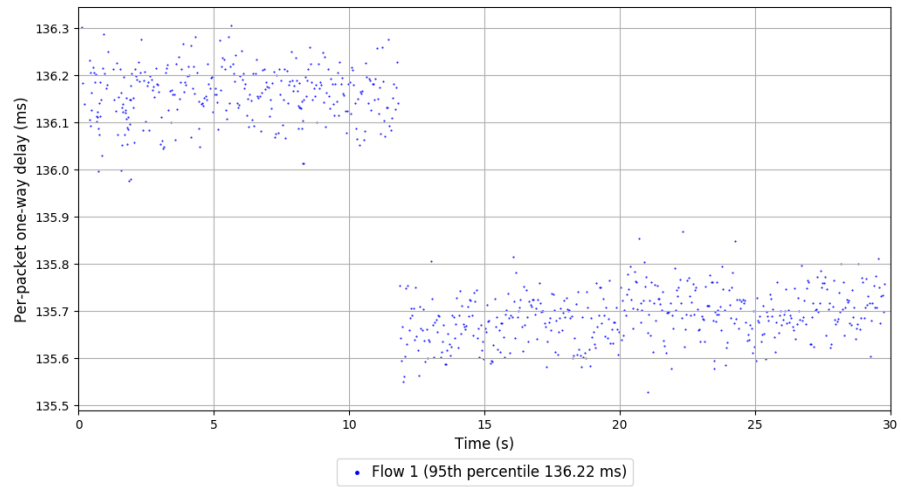
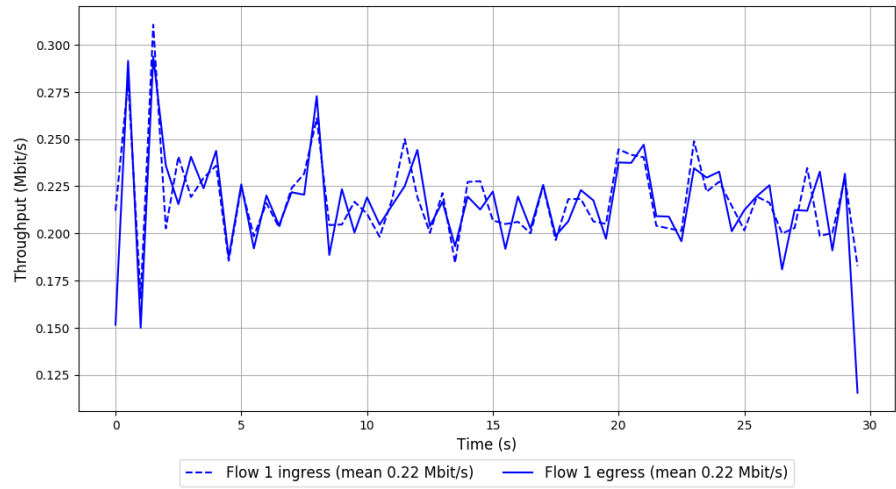
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.218 ms

Loss rate: 0.89%

Run 10: Report of SReAM — Data Link

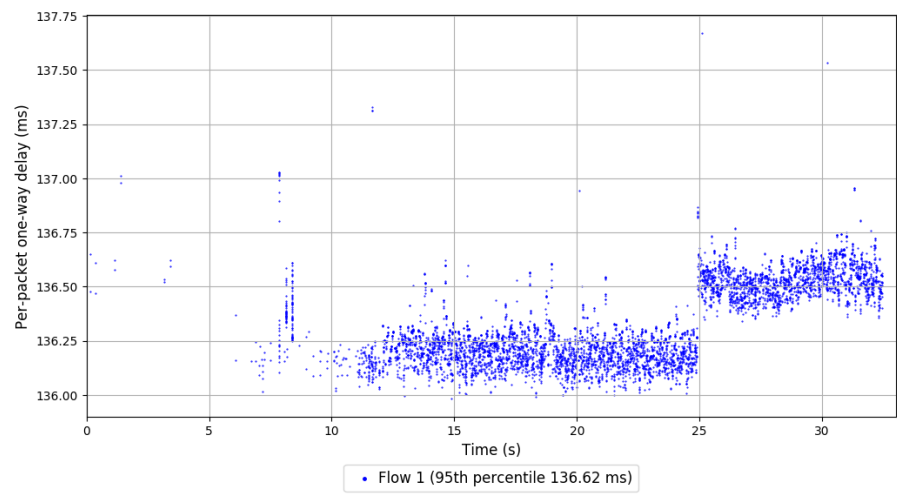
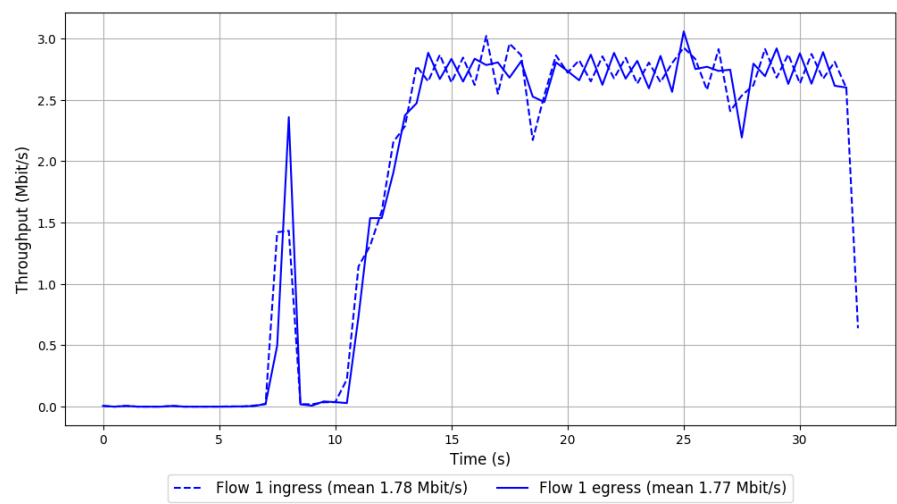


```
Run 1: Statistics of WebRTC media

Start at: 2017-12-20 07:10:15
End at: 2017-12-20 07:10:45

# Below is generated by plot.py at 2017-12-20 11:52:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.77 Mbit/s
95th percentile per-packet one-way delay: 136.617 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 1.77 Mbit/s
95th percentile per-packet one-way delay: 136.617 ms
Loss rate: 1.29%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-12-20 07:23:20

End at: 2017-12-20 07:23:50

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 136.487 ms

Loss rate: 1.02%

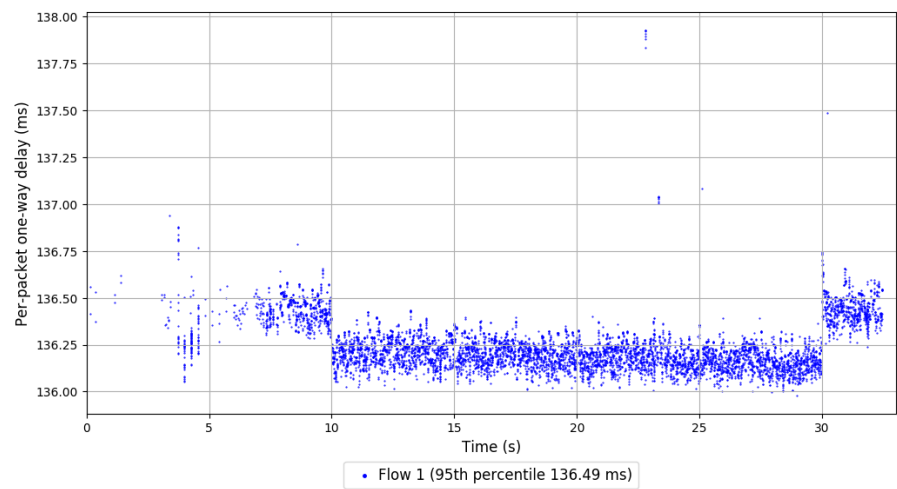
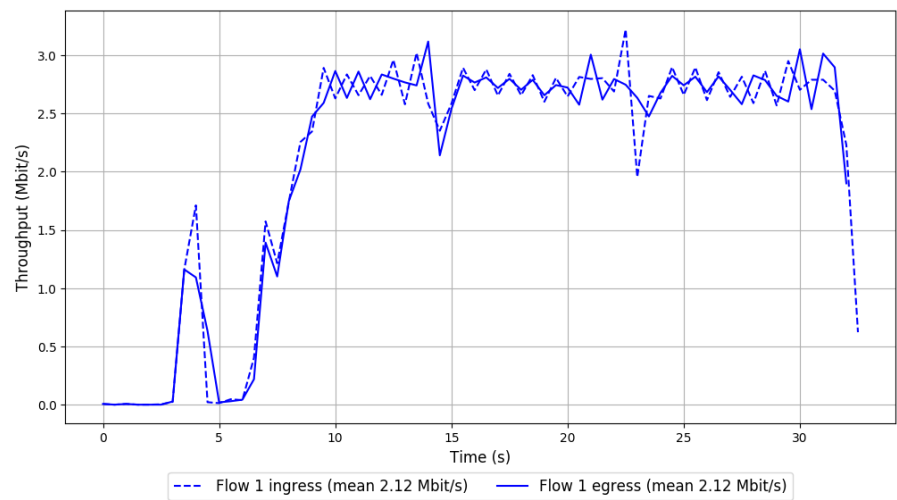
-- Flow 1:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 136.487 ms

Loss rate: 1.02%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-12-20 07:36:35

End at: 2017-12-20 07:37:05

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.09 Mbit/s

95th percentile per-packet one-way delay: 163.893 ms

Loss rate: 0.99%

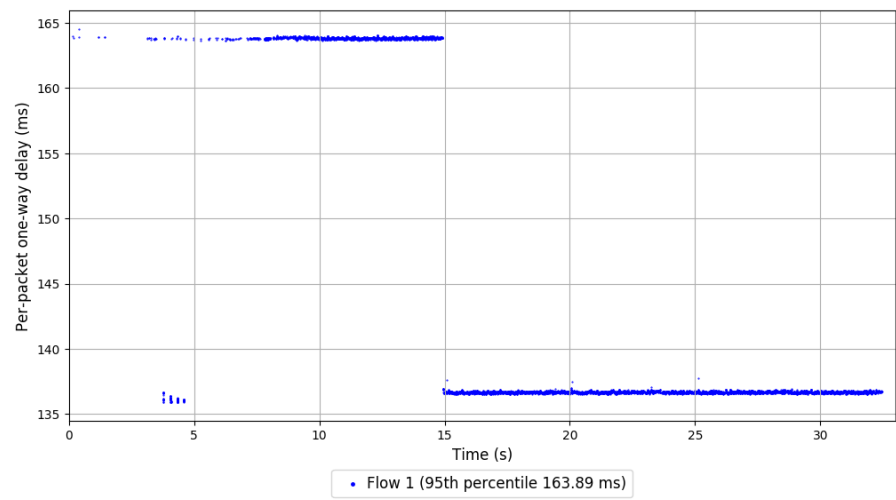
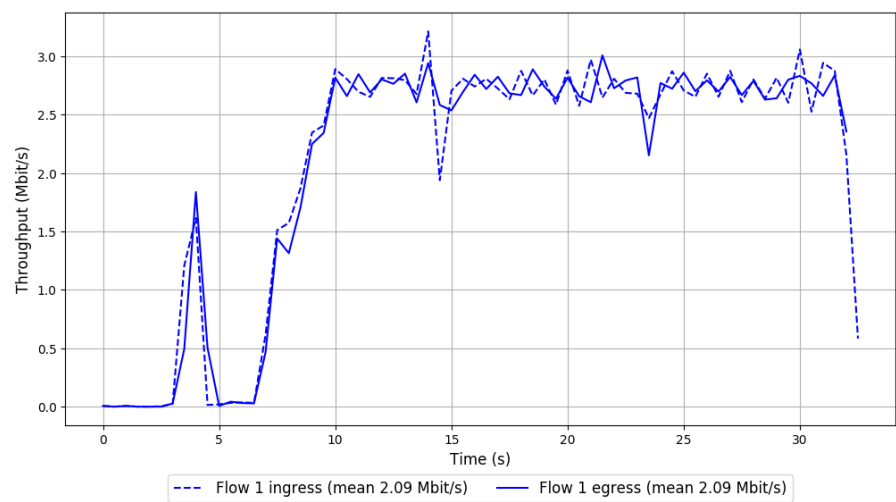
-- Flow 1:

Average throughput: 2.09 Mbit/s

95th percentile per-packet one-way delay: 163.893 ms

Loss rate: 0.99%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-12-20 07:49:40

End at: 2017-12-20 07:50:10

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 163.901 ms

Loss rate: 1.16%

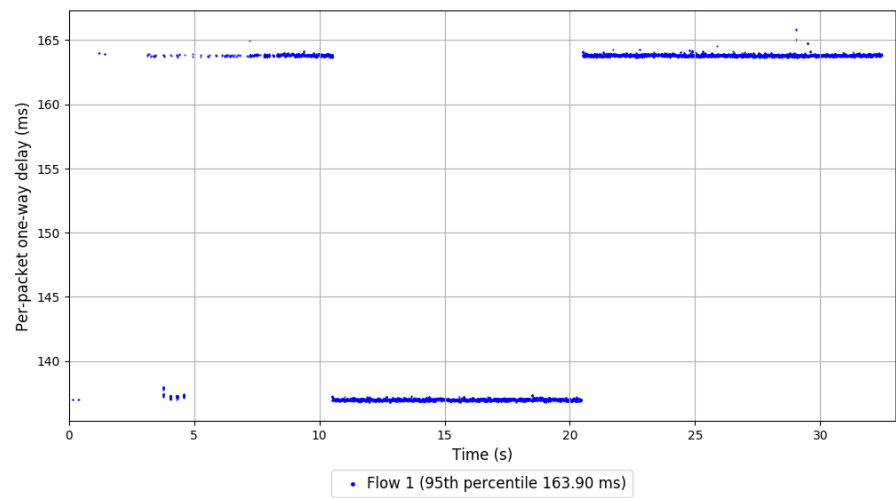
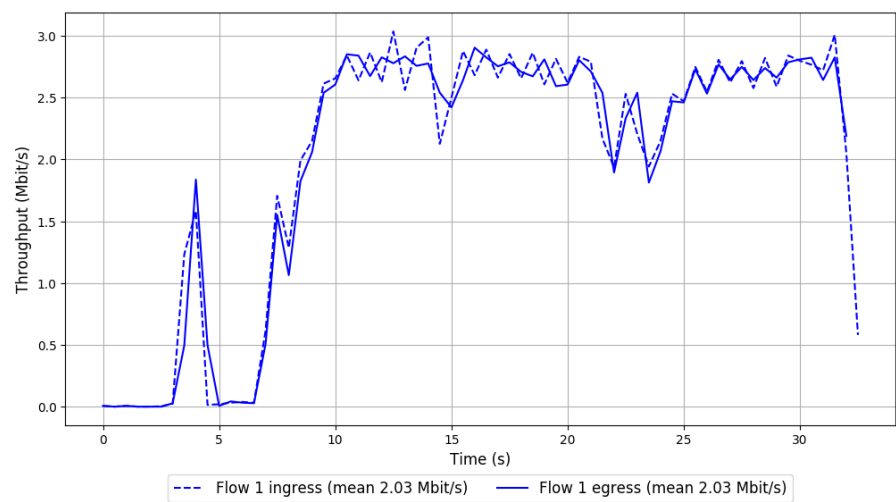
-- Flow 1:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 163.901 ms

Loss rate: 1.16%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-12-20 08:02:40

End at: 2017-12-20 08:03:10

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 136.821 ms

Loss rate: 0.91%

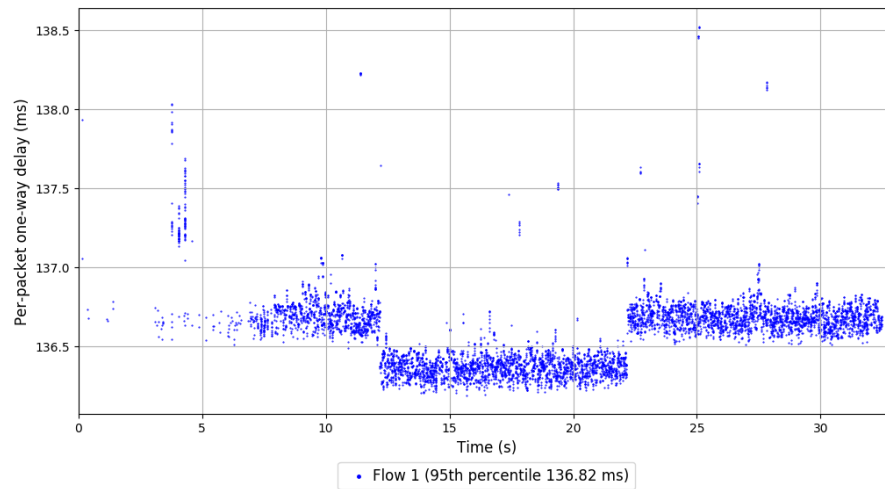
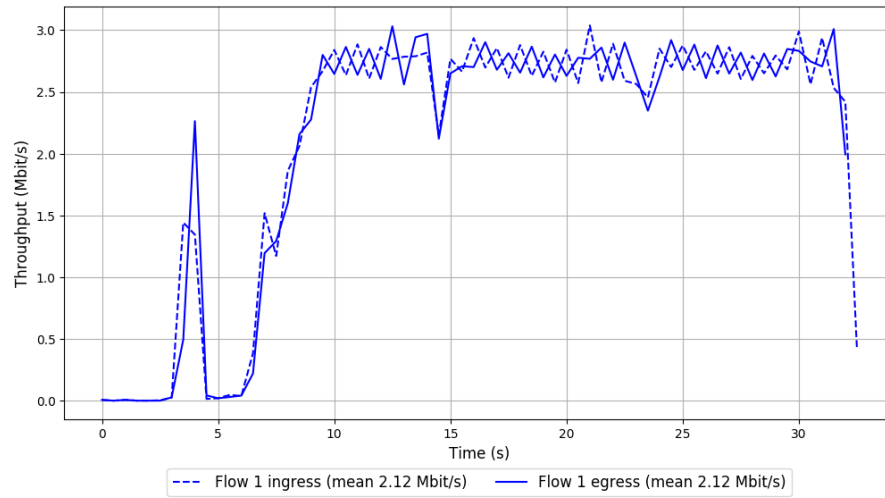
-- Flow 1:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 136.821 ms

Loss rate: 0.91%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-12-20 08:15:27

End at: 2017-12-20 08:15:57

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 136.652 ms

Loss rate: 1.03%

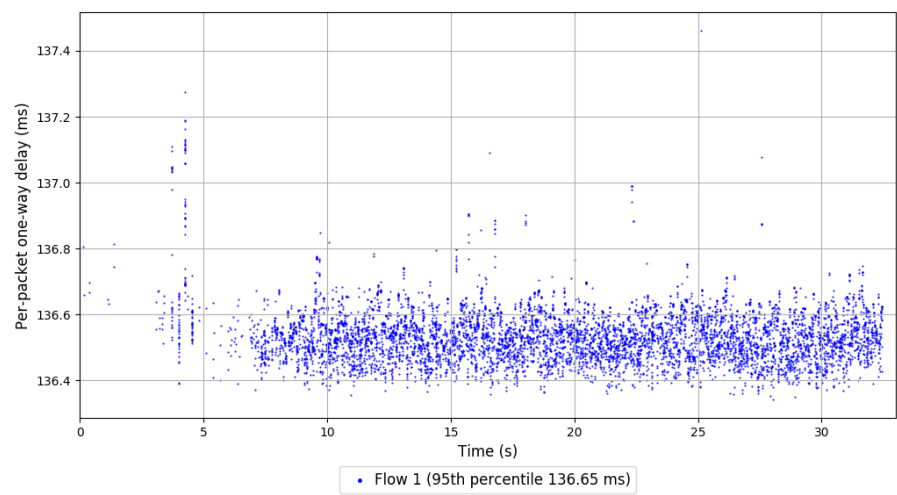
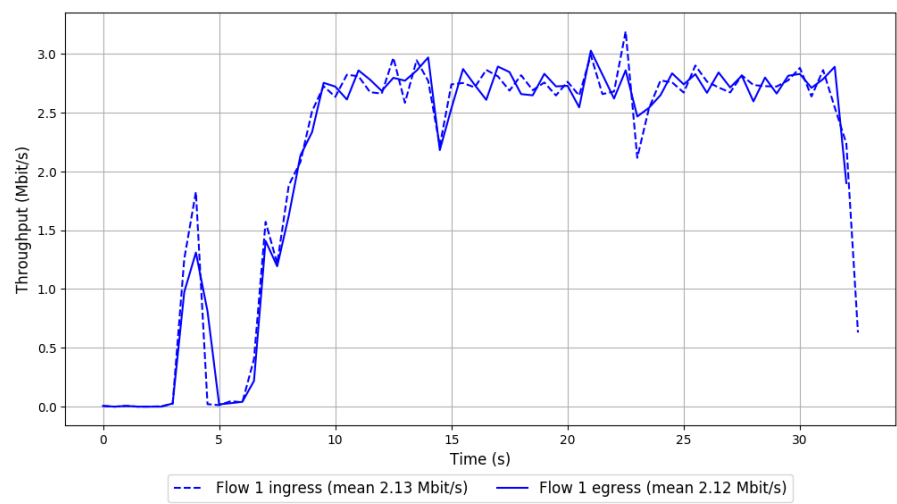
-- Flow 1:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 136.652 ms

Loss rate: 1.03%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-12-20 08:28:43

End at: 2017-12-20 08:29:13

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 137.106 ms

Loss rate: 1.03%

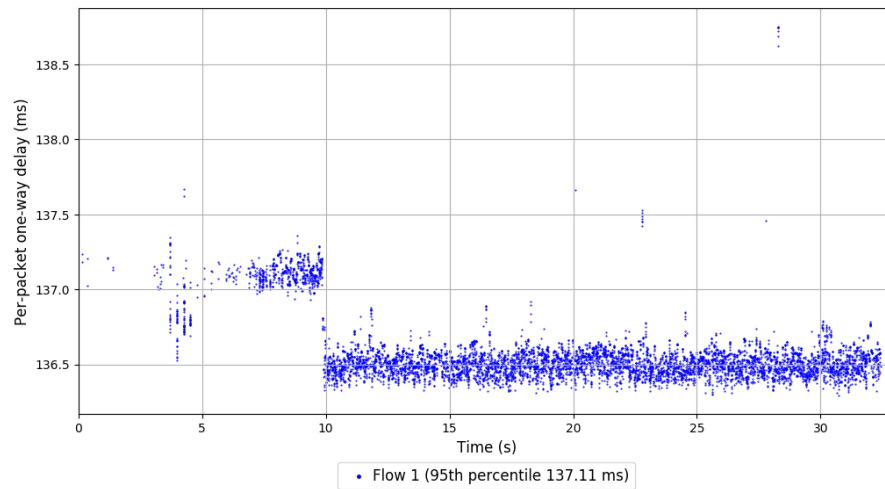
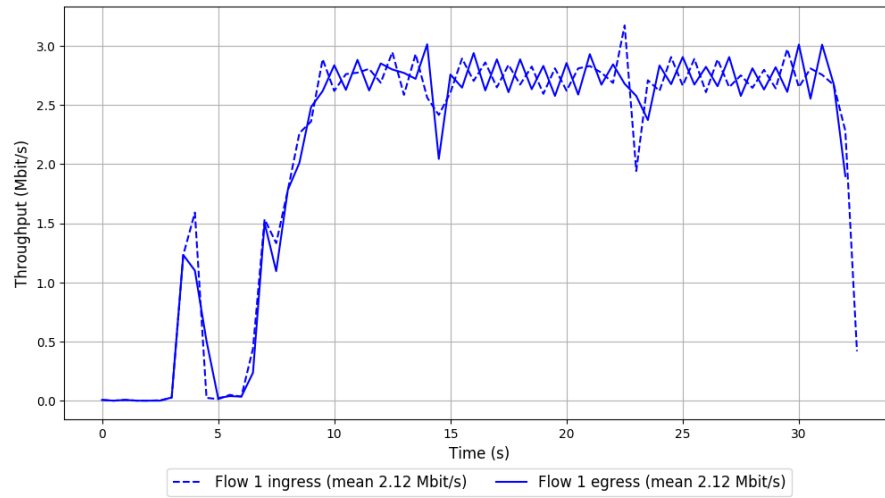
-- Flow 1:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 137.106 ms

Loss rate: 1.03%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-12-20 08:41:38

End at: 2017-12-20 08:42:08

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 161.274 ms

Loss rate: 1.00%

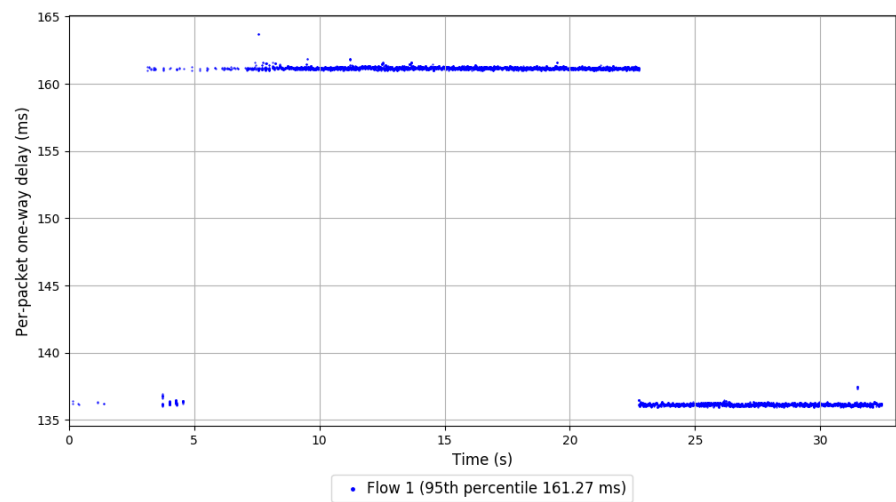
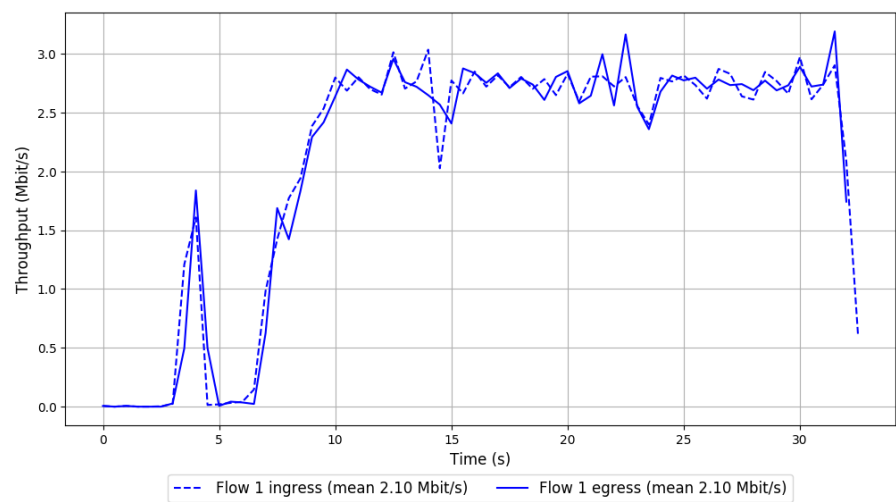
-- Flow 1:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 161.274 ms

Loss rate: 1.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-12-20 08:54:44

End at: 2017-12-20 08:55:14

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.91 Mbit/s

95th percentile per-packet one-way delay: 136.320 ms

Loss rate: 1.36%

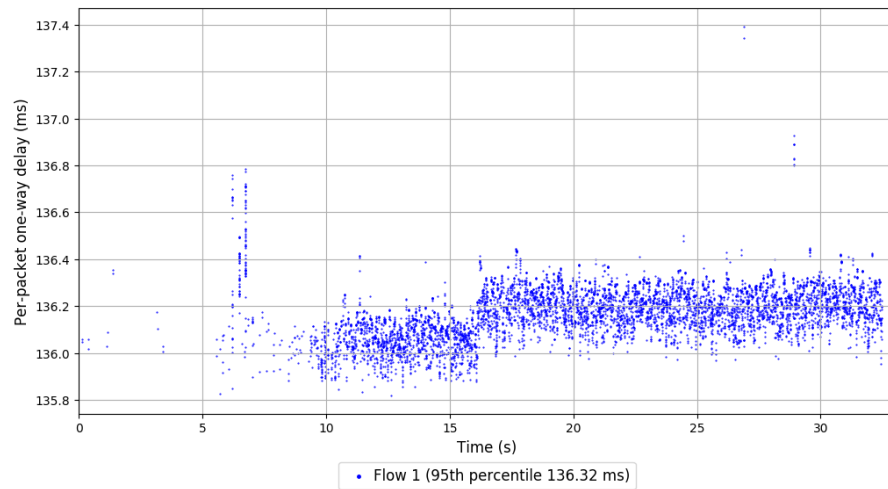
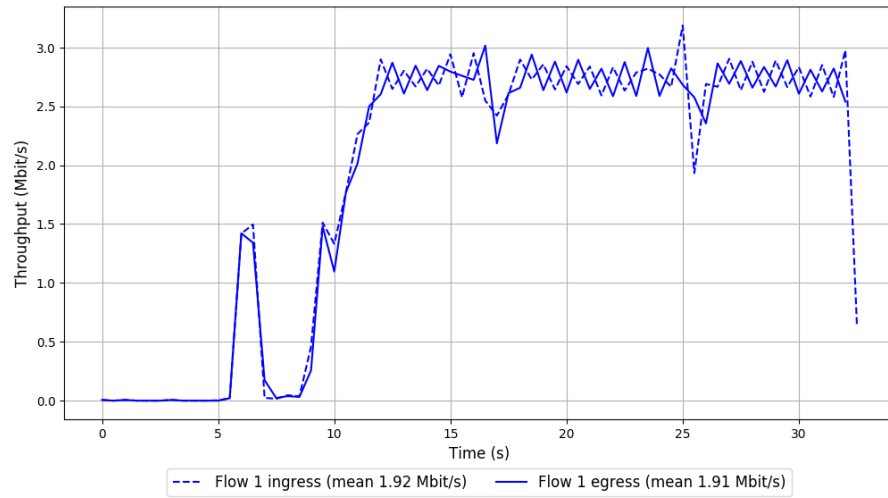
-- Flow 1:

Average throughput: 1.91 Mbit/s

95th percentile per-packet one-way delay: 136.320 ms

Loss rate: 1.36%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-12-20 09:07:31

End at: 2017-12-20 09:08:01

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 137.115 ms

Loss rate: 1.00%

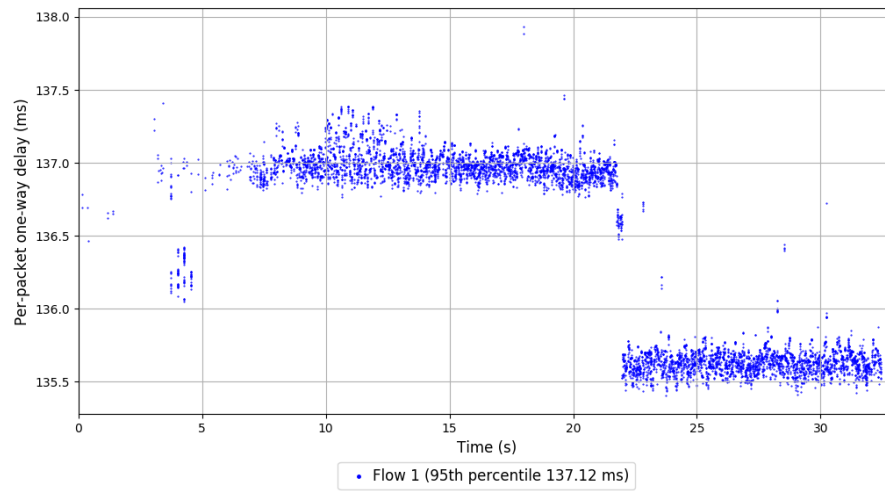
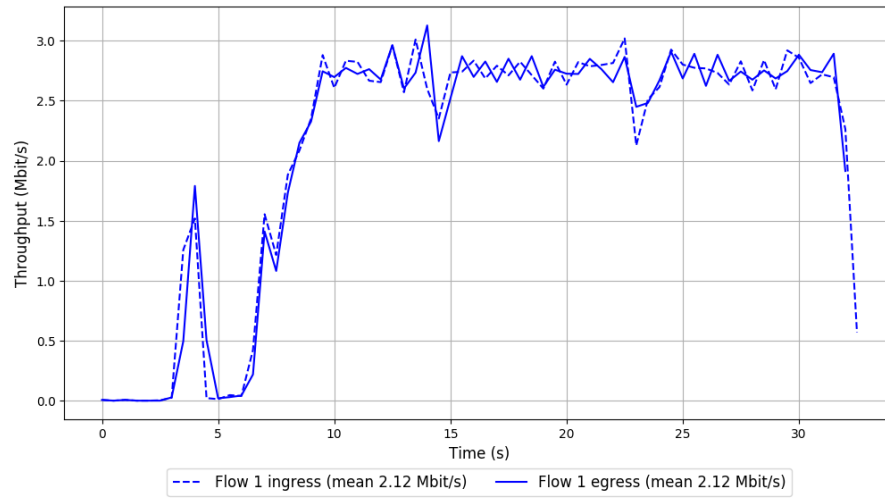
-- Flow 1:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 137.115 ms

Loss rate: 1.00%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2017-12-20 07:14:11

End at: 2017-12-20 07:14:41

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 137.139 ms

Loss rate: 1.07%

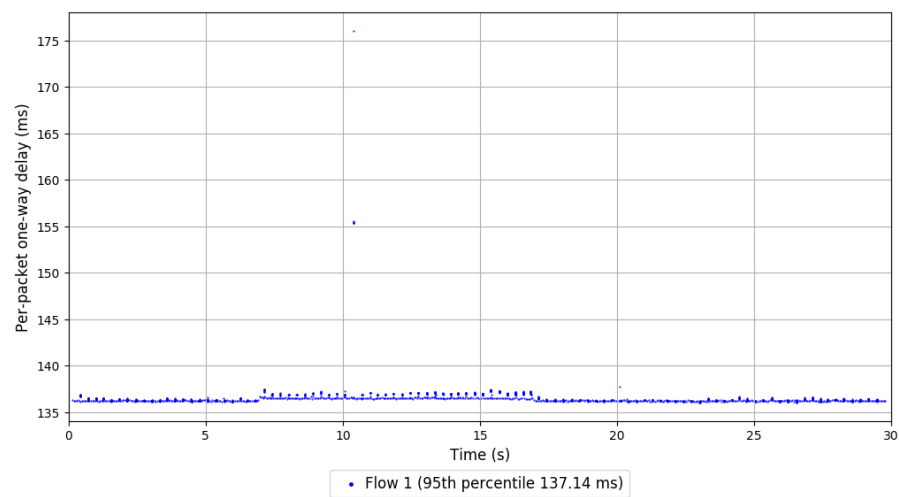
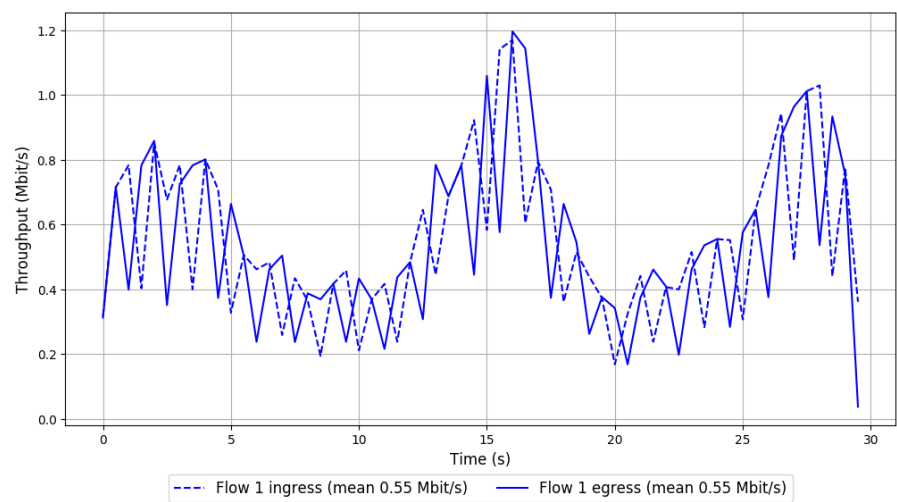
-- Flow 1:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 137.139 ms

Loss rate: 1.07%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-12-20 07:27:17

End at: 2017-12-20 07:27:47

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 136.762 ms

Loss rate: 0.94%

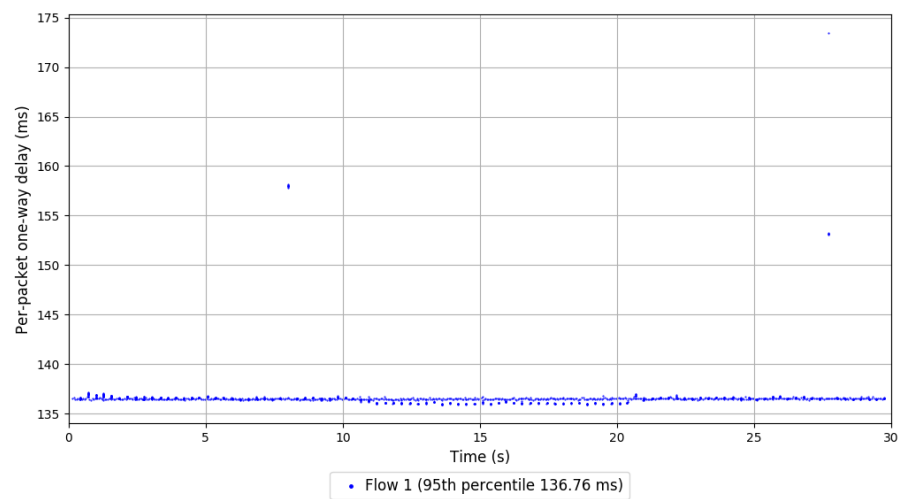
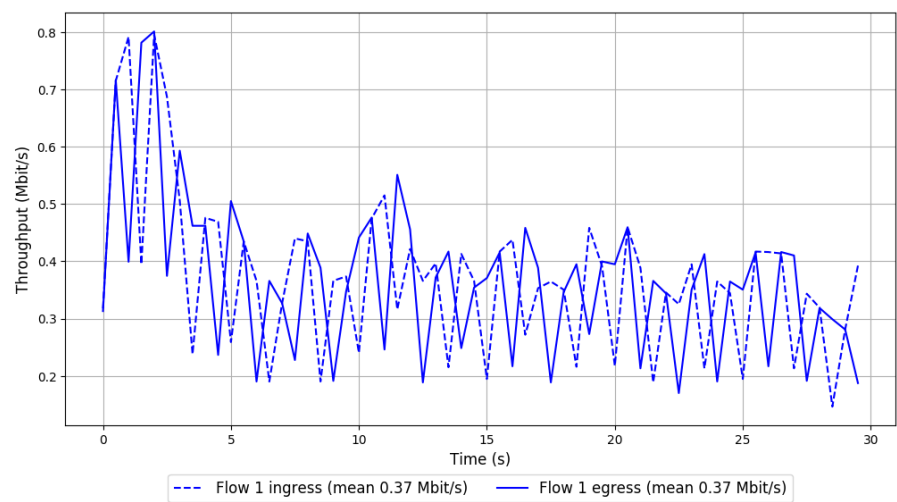
-- Flow 1:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 136.762 ms

Loss rate: 0.94%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-12-20 07:40:35

End at: 2017-12-20 07:41:05

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 136.786 ms

Loss rate: 0.07%

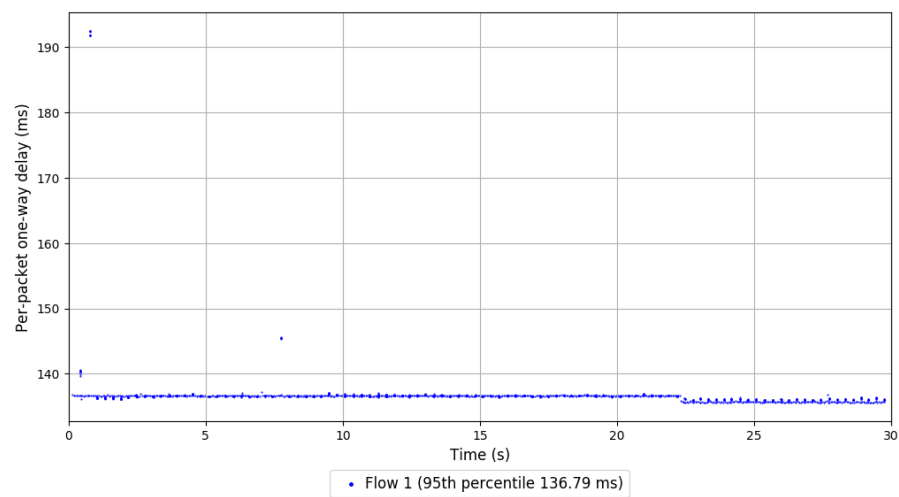
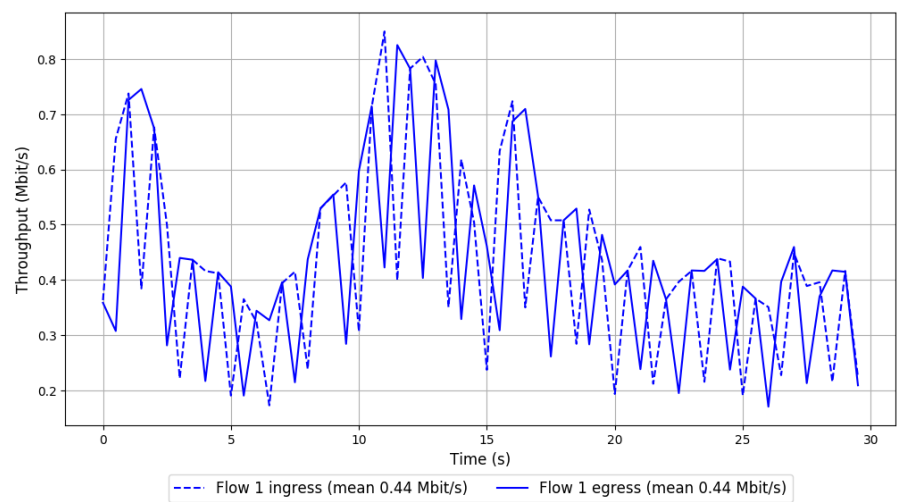
-- Flow 1:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 136.786 ms

Loss rate: 0.07%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-12-20 07:53:41

End at: 2017-12-20 07:54:11

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 137.302 ms

Loss rate: 1.47%

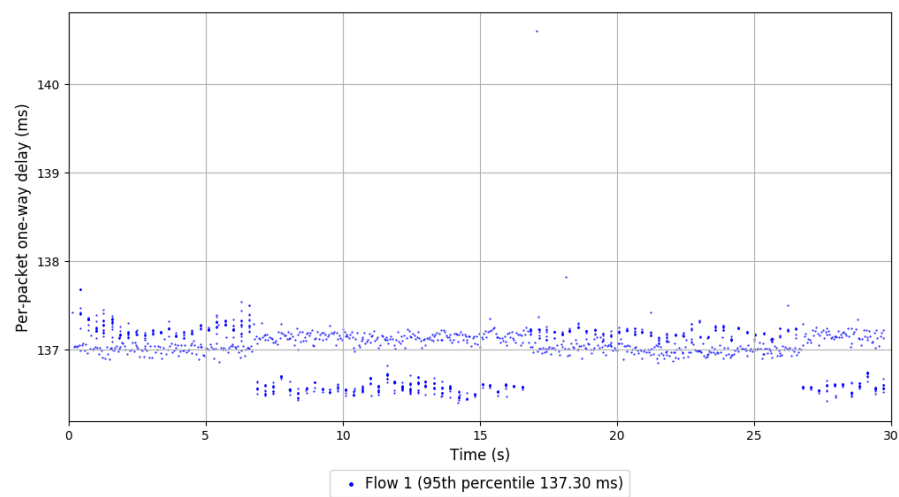
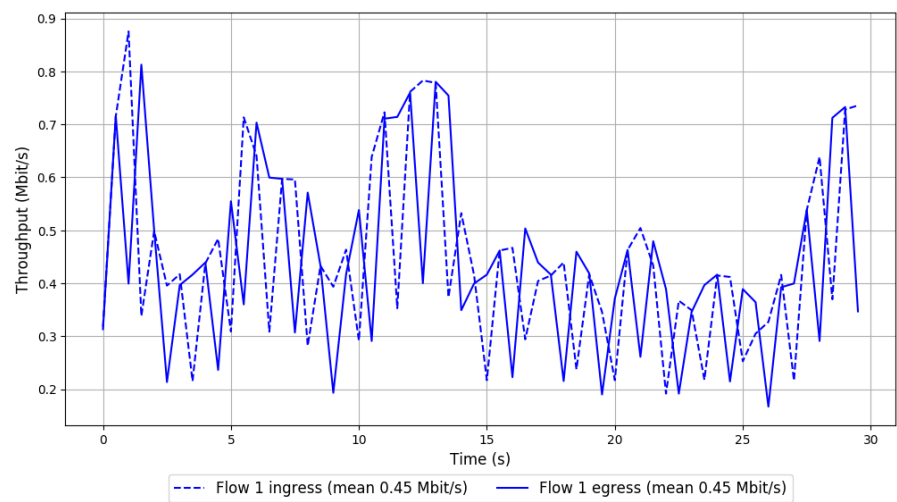
-- Flow 1:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 137.302 ms

Loss rate: 1.47%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-12-20 08:06:19

End at: 2017-12-20 08:06:49

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 136.965 ms

Loss rate: 0.93%

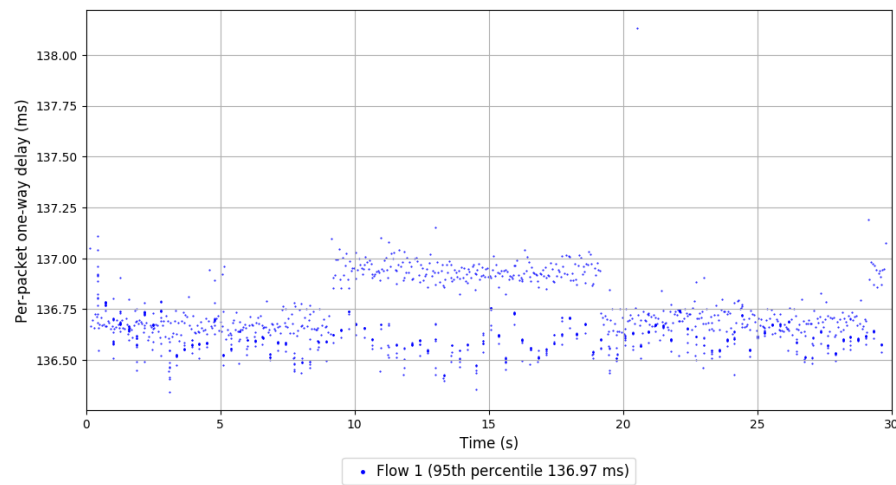
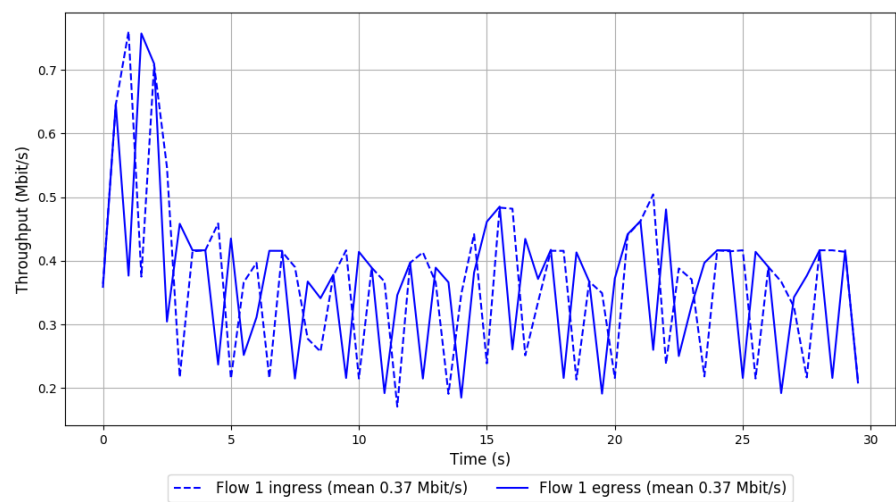
-- Flow 1:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 136.965 ms

Loss rate: 0.93%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-12-20 08:19:25

End at: 2017-12-20 08:19:55

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.69 Mbit/s

95th percentile per-packet one-way delay: 137.012 ms

Loss rate: 0.57%

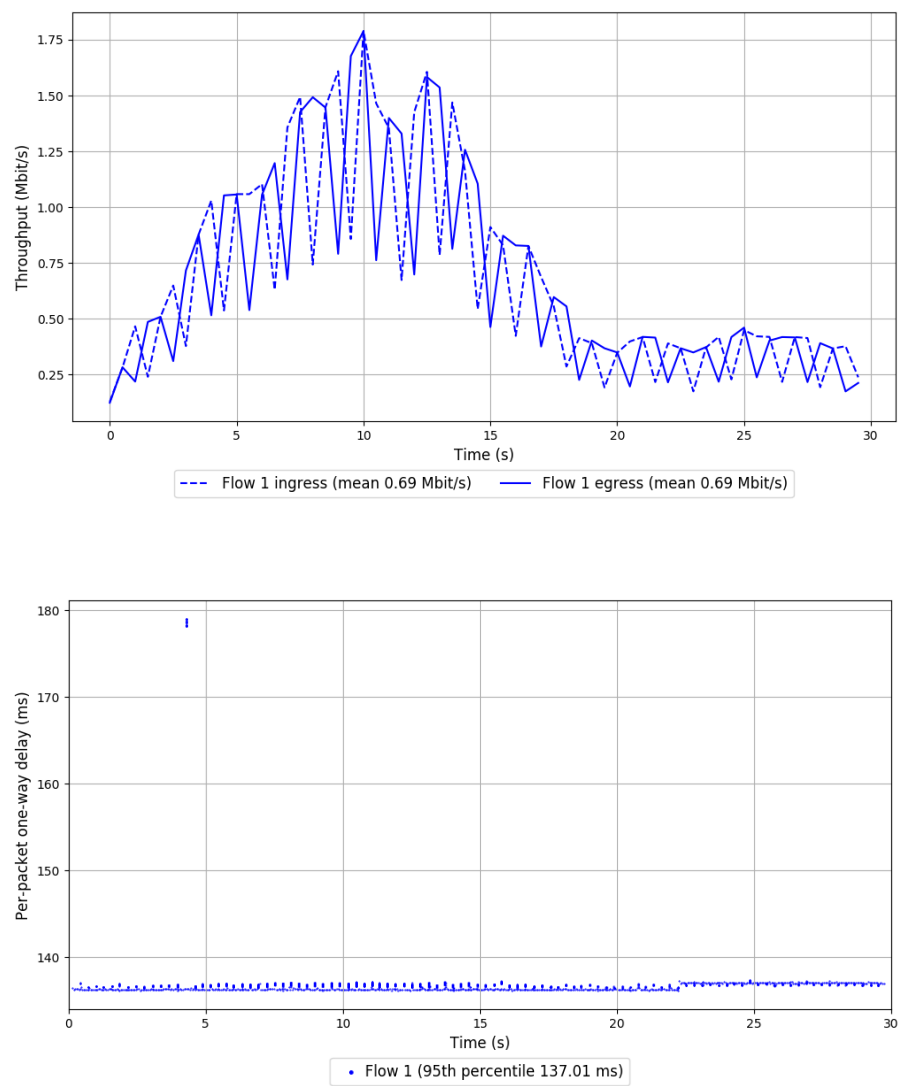
-- Flow 1:

Average throughput: 0.69 Mbit/s

95th percentile per-packet one-way delay: 137.012 ms

Loss rate: 0.57%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-12-20 08:32:36

End at: 2017-12-20 08:33:06

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 136.590 ms

Loss rate: 0.91%

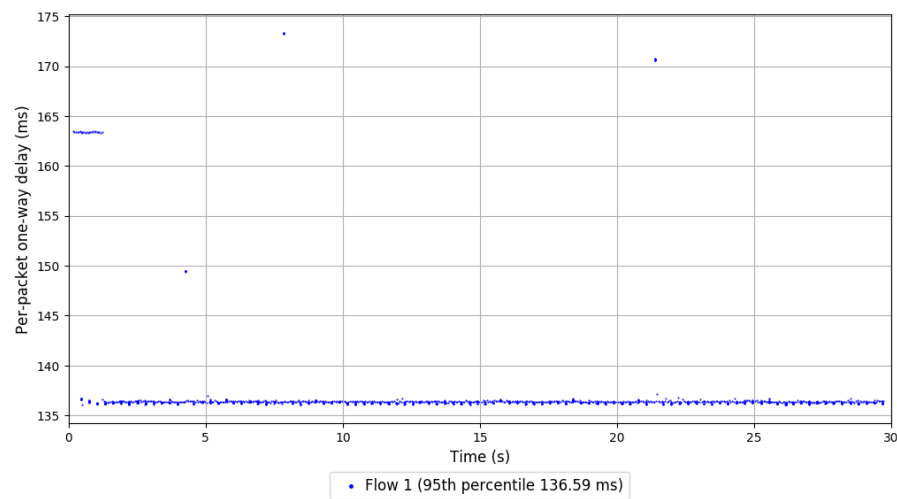
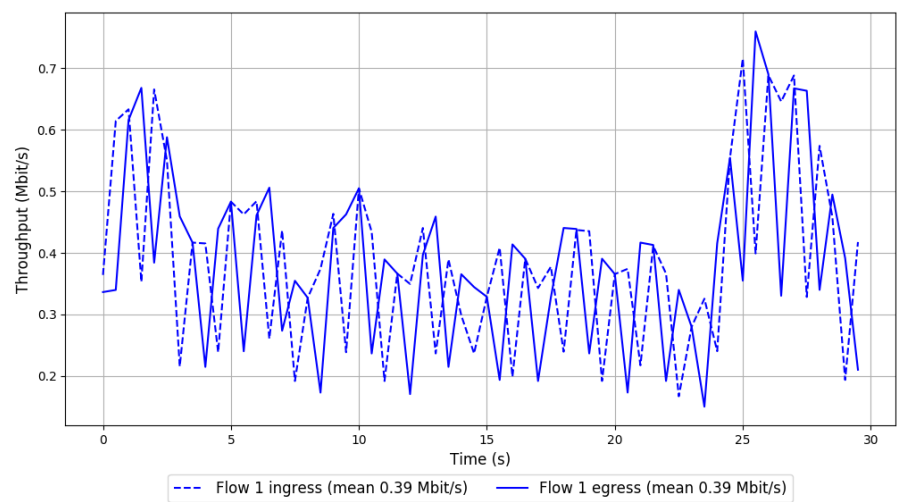
-- Flow 1:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 136.590 ms

Loss rate: 0.91%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-12-20 08:45:35

End at: 2017-12-20 08:46:05

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 137.084 ms

Loss rate: 0.87%

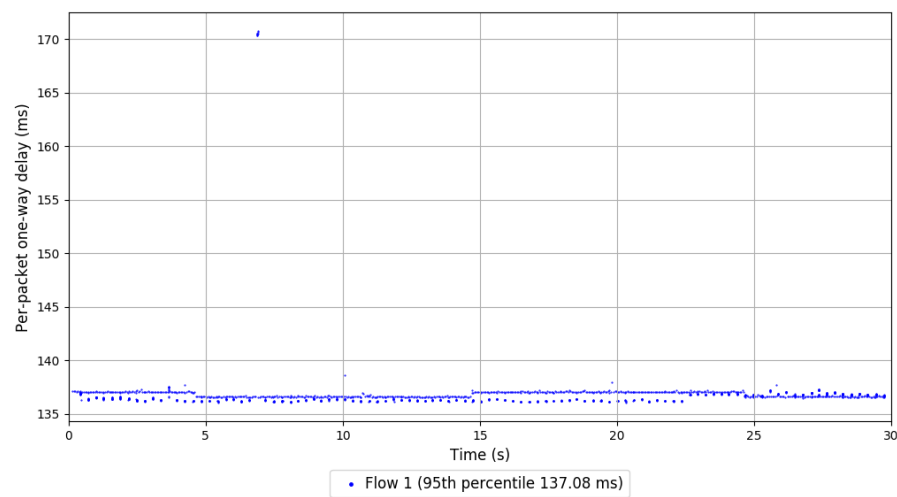
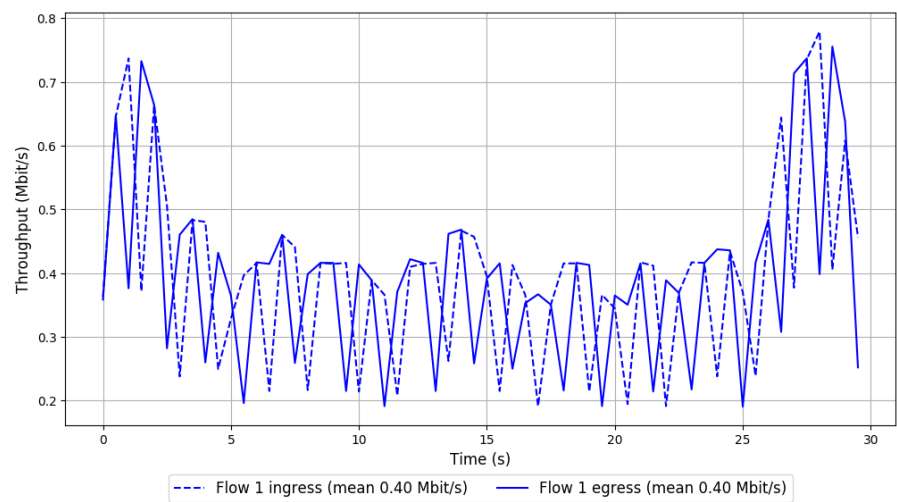
-- Flow 1:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 137.084 ms

Loss rate: 0.87%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-12-20 08:58:24

End at: 2017-12-20 08:58:54

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 163.569 ms

Loss rate: 0.79%

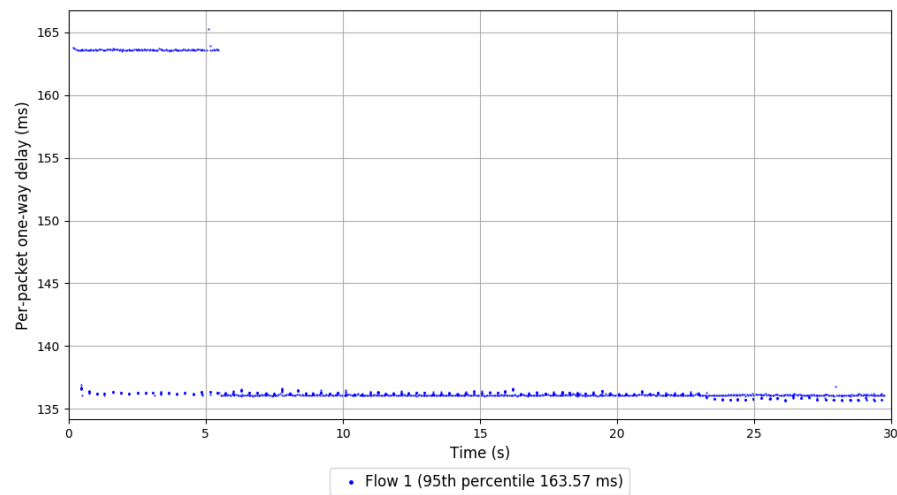
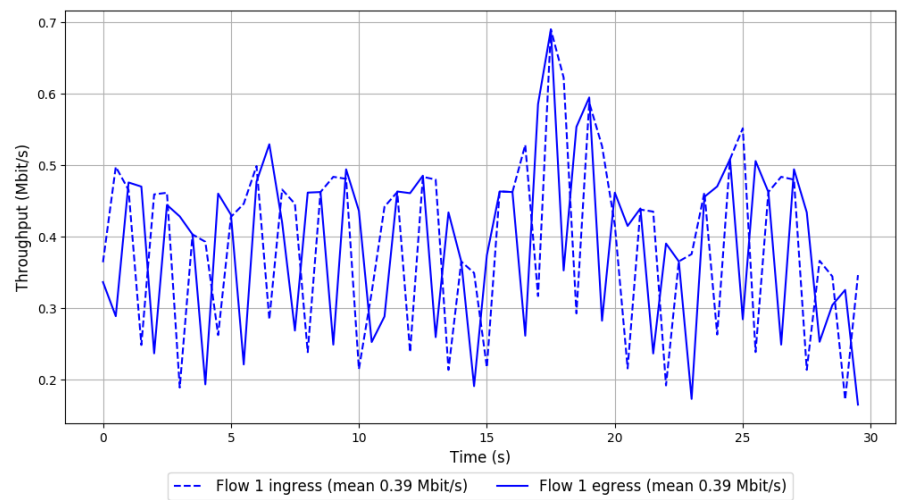
-- Flow 1:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 163.569 ms

Loss rate: 0.79%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-12-20 09:11:24

End at: 2017-12-20 09:11:54

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 136.762 ms

Loss rate: 0.69%

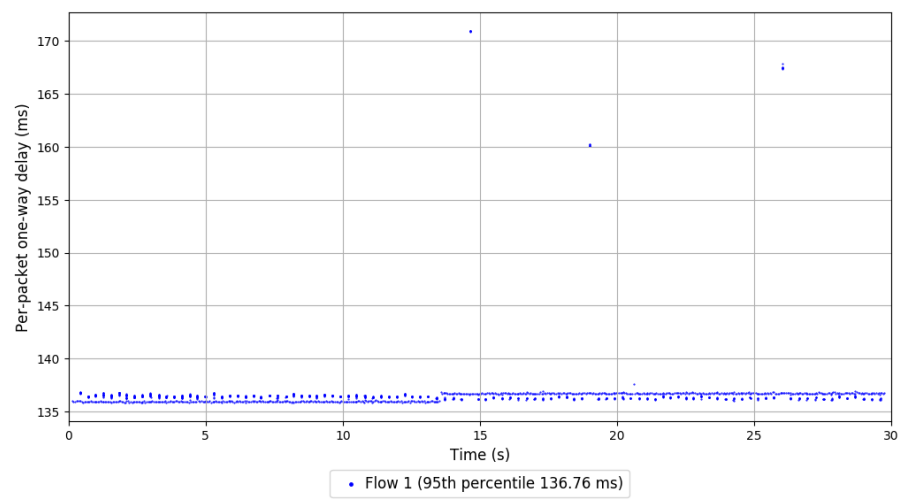
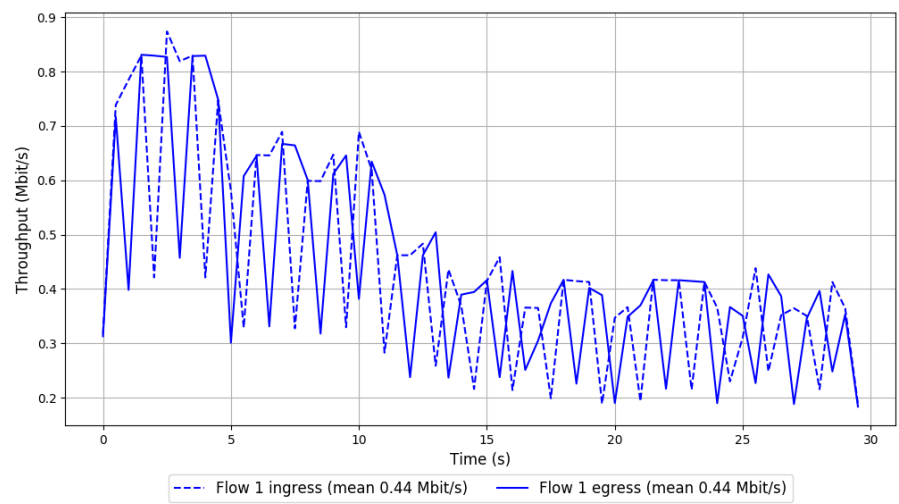
-- Flow 1:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 136.762 ms

Loss rate: 0.69%

Run 10: Report of Sprout — Data Link

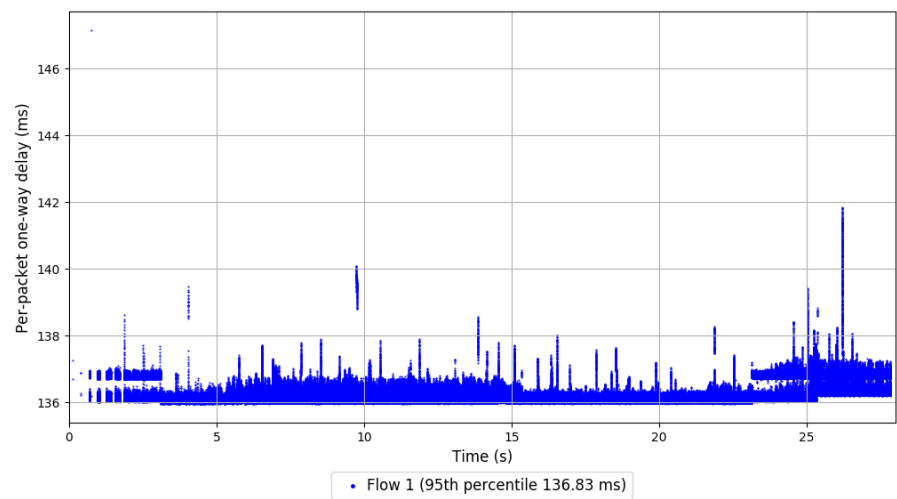
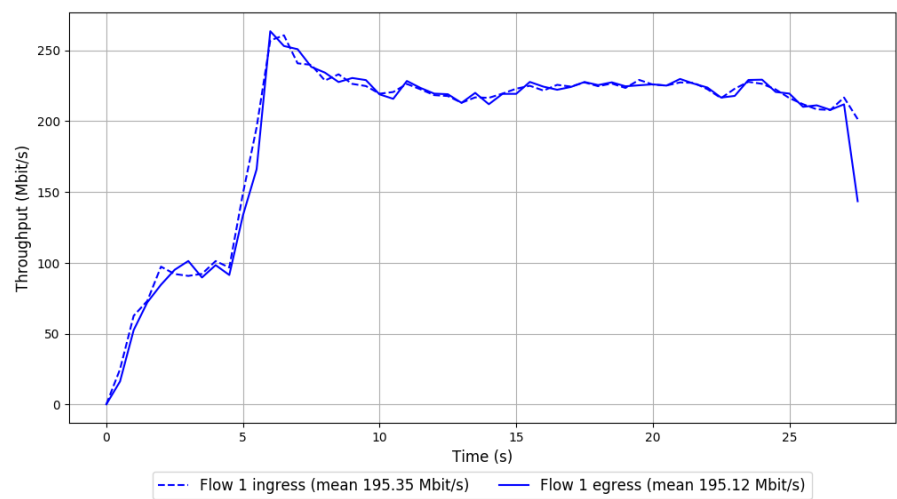


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-12-20 07:12:23
End at: 2017-12-20 07:12:53

# Below is generated by plot.py at 2017-12-20 11:52:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 195.12 Mbit/s
95th percentile per-packet one-way delay: 136.832 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 195.12 Mbit/s
95th percentile per-packet one-way delay: 136.832 ms
Loss rate: 1.10%
```


Run 1: Report of TaoVA-100x — Data Link

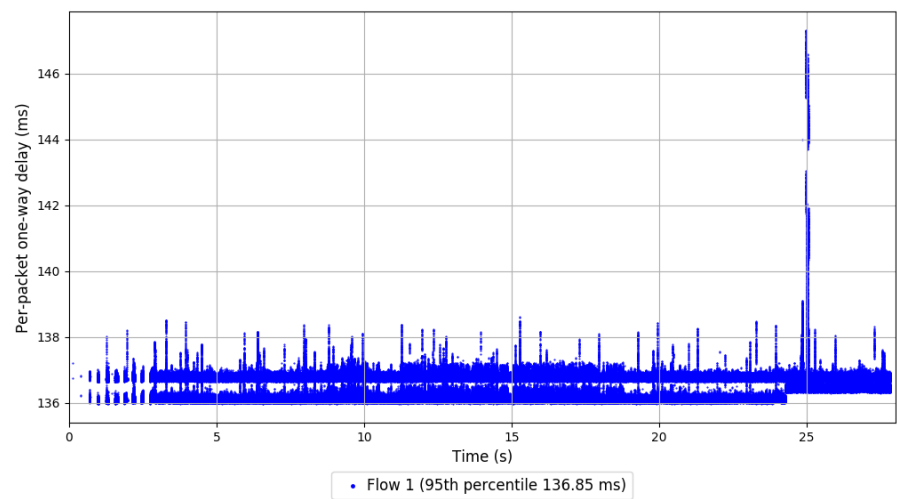
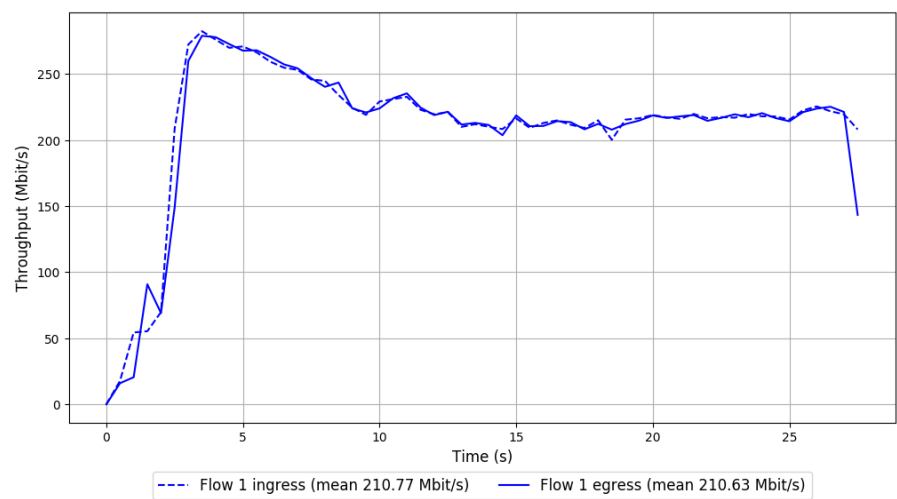


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-12-20 07:25:27
End at: 2017-12-20 07:25:57

# Below is generated by plot.py at 2017-12-20 11:52:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 210.63 Mbit/s
95th percentile per-packet one-way delay: 136.853 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 210.63 Mbit/s
95th percentile per-packet one-way delay: 136.853 ms
Loss rate: 1.04%
```

Run 2: Report of TaoVA-100x — Data Link



Run 3: Statistics of TaoVA-100x

Start at: 2017-12-20 07:38:43

End at: 2017-12-20 07:39:13

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 216.95 Mbit/s

95th percentile per-packet one-way delay: 136.460 ms

Loss rate: 0.98%

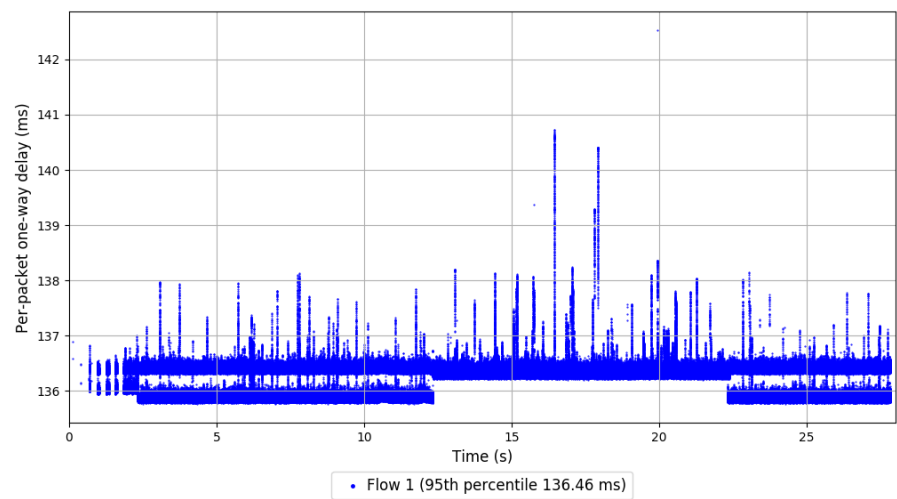
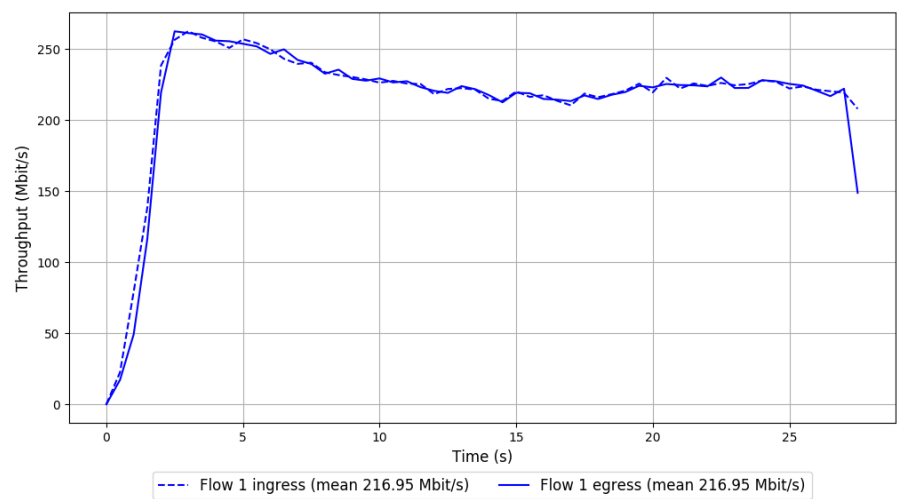
-- Flow 1:

Average throughput: 216.95 Mbit/s

95th percentile per-packet one-way delay: 136.460 ms

Loss rate: 0.98%

Run 3: Report of TaoVA-100x — Data Link



Run 4: Statistics of TaoVA-100x

Start at: 2017-12-20 07:51:48

End at: 2017-12-20 07:52:18

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 221.46 Mbit/s

95th percentile per-packet one-way delay: 137.112 ms

Loss rate: 0.98%

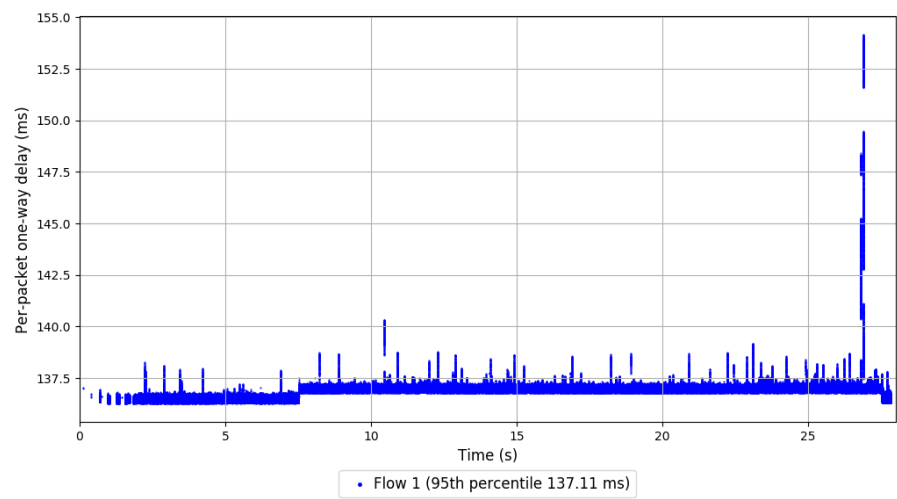
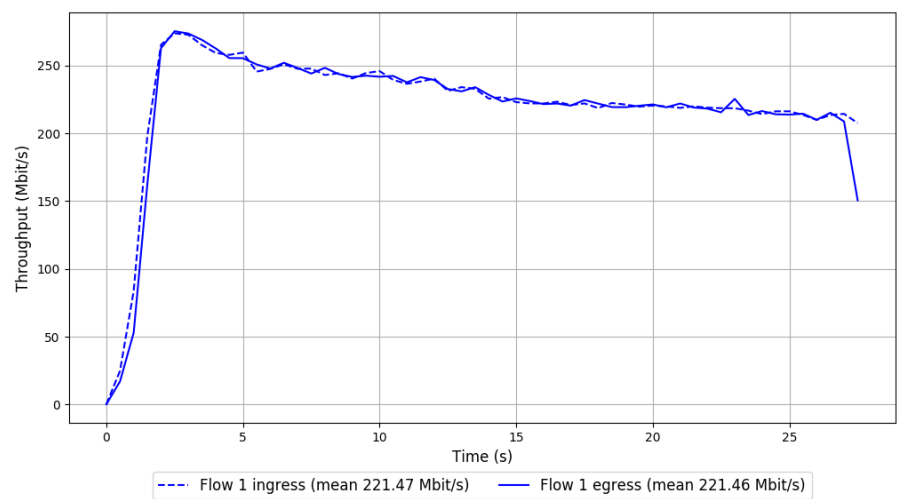
-- Flow 1:

Average throughput: 221.46 Mbit/s

95th percentile per-packet one-way delay: 137.112 ms

Loss rate: 0.98%

Run 4: Report of TaoVA-100x — Data Link

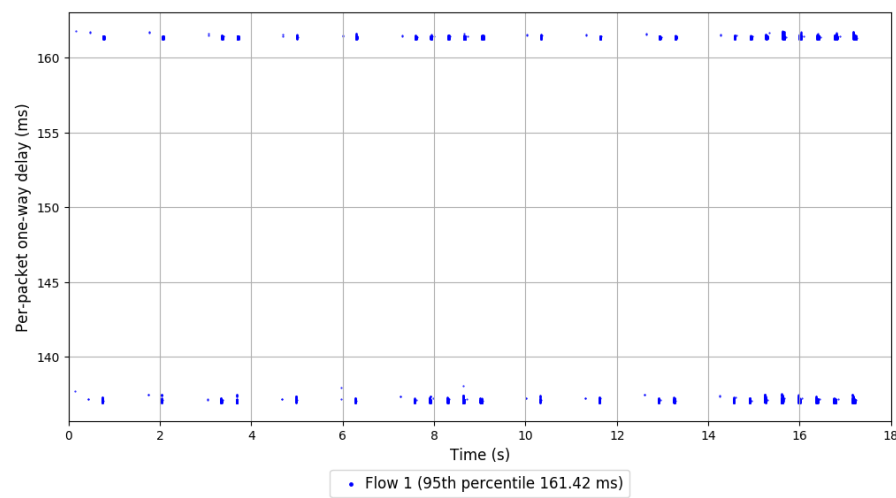
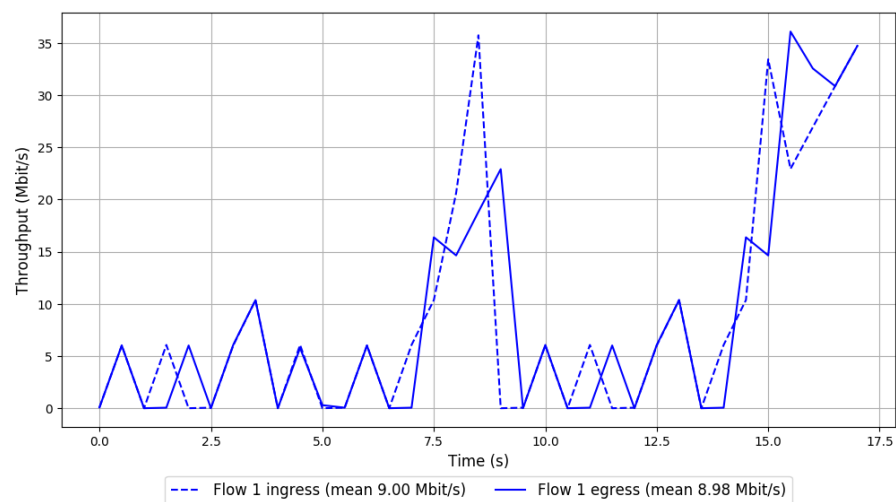


Run 5: Statistics of TaoVA-100x

Start at: 2017-12-20 08:04:49

End at: 2017-12-20 08:05:19

Run 5: Report of TaoVA-100x — Data Link



Run 6: Statistics of TaoVA-100x

Start at: 2017-12-20 08:17:35

End at: 2017-12-20 08:18:05

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 213.10 Mbit/s

95th percentile per-packet one-way delay: 137.119 ms

Loss rate: 1.03%

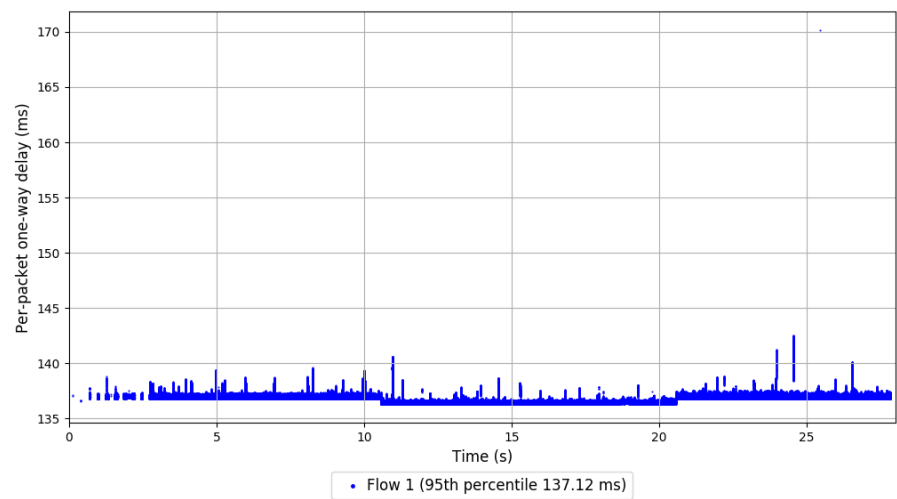
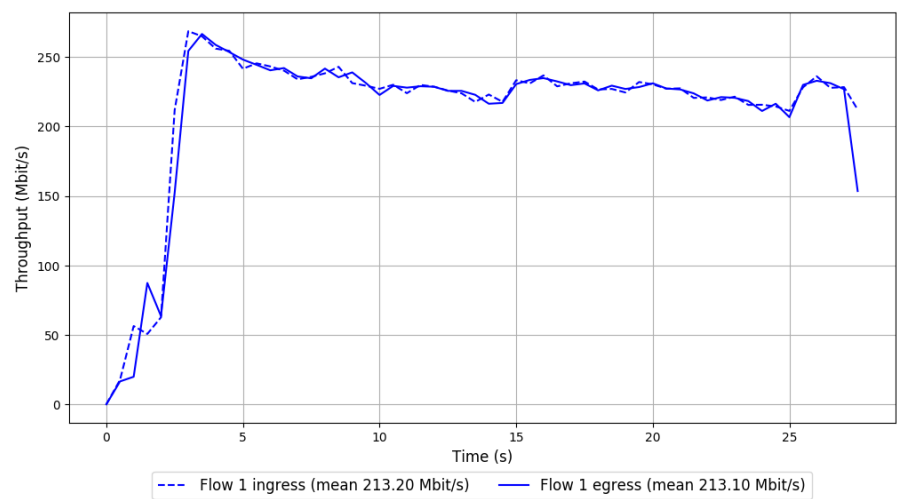
-- Flow 1:

Average throughput: 213.10 Mbit/s

95th percentile per-packet one-way delay: 137.119 ms

Loss rate: 1.03%

Run 6: Report of TaoVA-100x — Data Link



Run 7: Statistics of TaoVA-100x

Start at: 2017-12-20 08:30:52

End at: 2017-12-20 08:31:22

Below is generated by plot.py at 2017-12-20 11:52:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 178.95 Mbit/s

95th percentile per-packet one-way delay: 136.665 ms

Loss rate: 0.65%

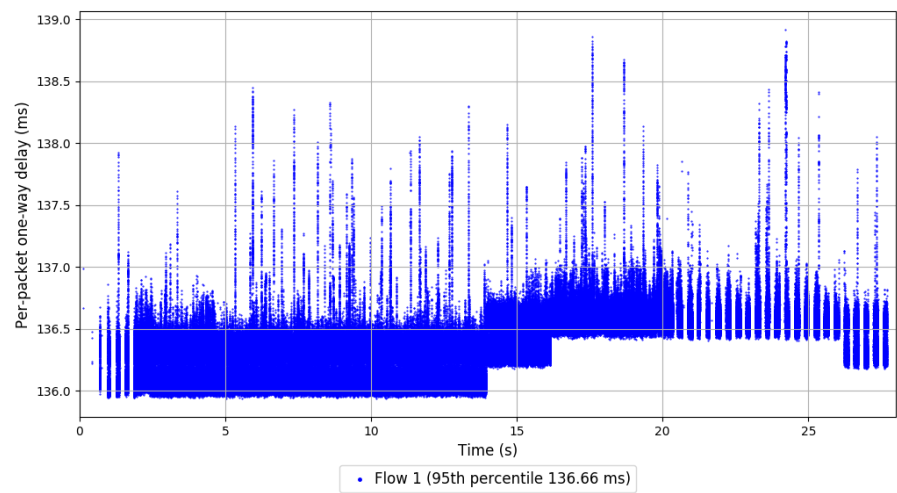
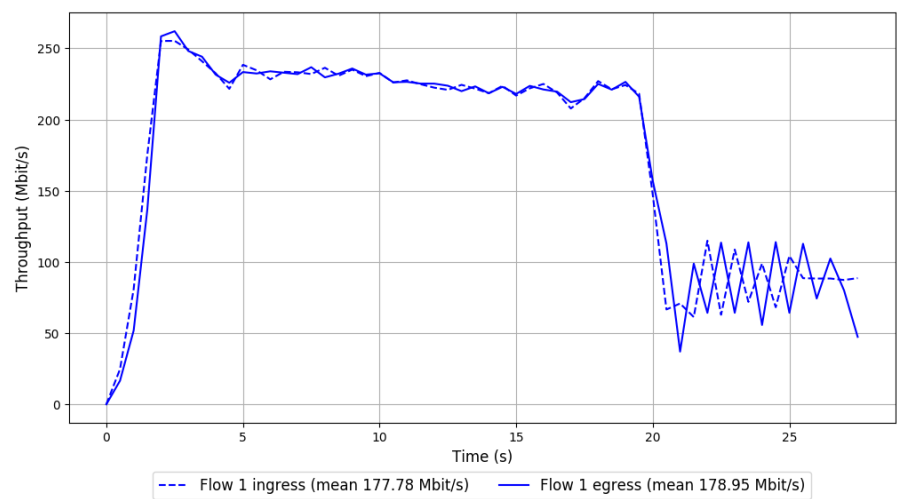
-- Flow 1:

Average throughput: 178.95 Mbit/s

95th percentile per-packet one-way delay: 136.665 ms

Loss rate: 0.65%

Run 7: Report of TaoVA-100x — Data Link



Run 8: Statistics of TaoVA-100x

Start at: 2017-12-20 08:43:47

End at: 2017-12-20 08:44:17

Below is generated by plot.py at 2017-12-20 11:56:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 202.24 Mbit/s

95th percentile per-packet one-way delay: 136.915 ms

Loss rate: 1.17%

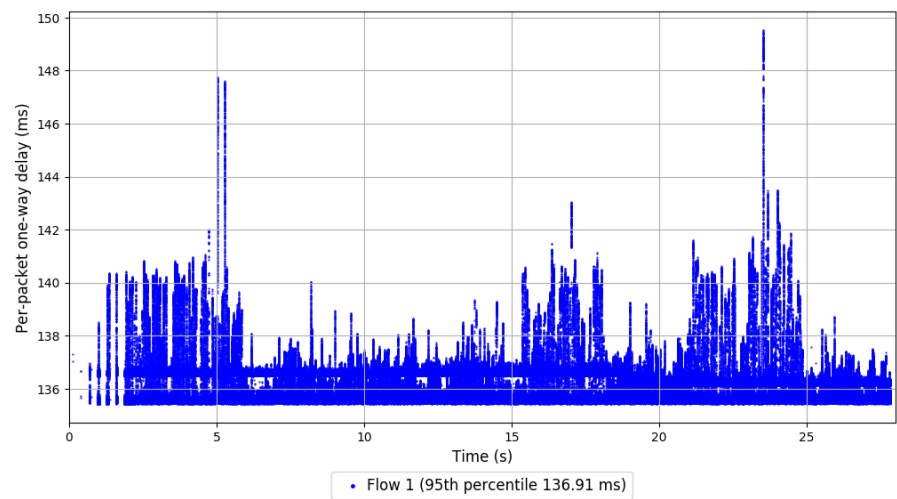
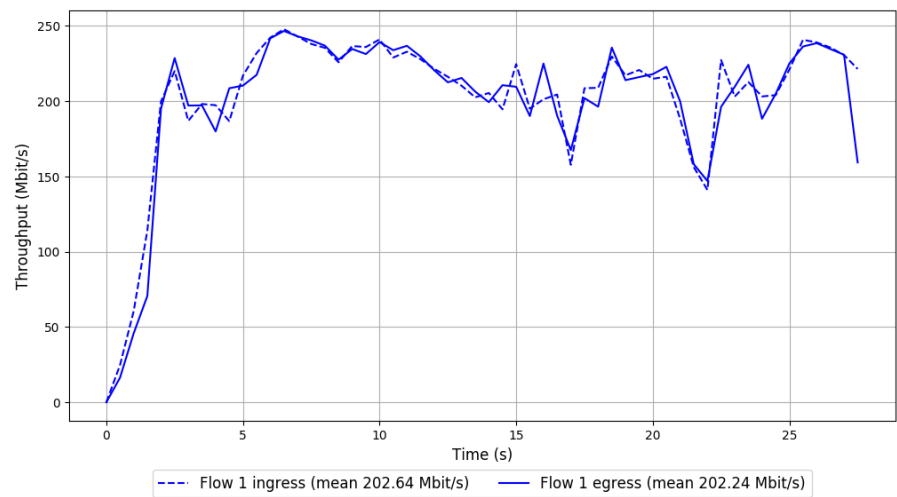
-- Flow 1:

Average throughput: 202.24 Mbit/s

95th percentile per-packet one-way delay: 136.915 ms

Loss rate: 1.17%

Run 8: Report of TaoVA-100x — Data Link



Run 9: Statistics of TaoVA-100x

Start at: 2017-12-20 08:56:54

End at: 2017-12-20 08:57:24

Below is generated by plot.py at 2017-12-20 11:56:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 13.29 Mbit/s

95th percentile per-packet one-way delay: 136.556 ms

Loss rate: 1.00%

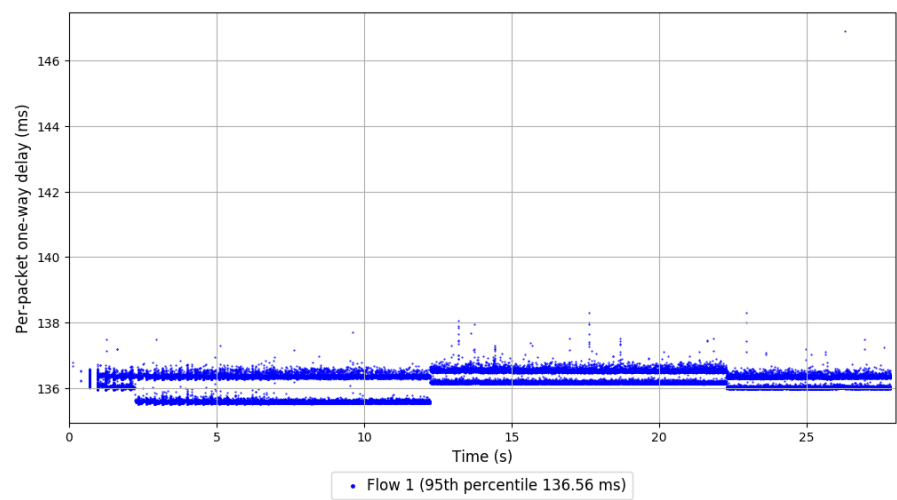
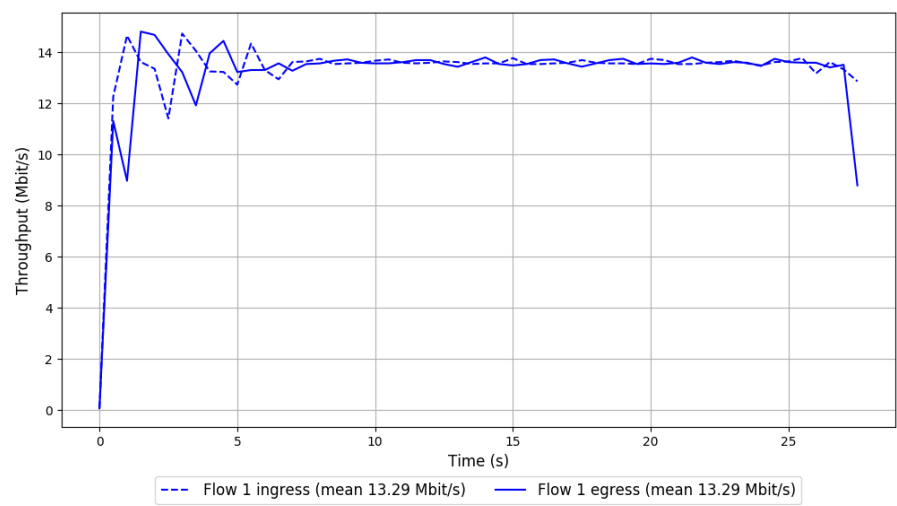
-- Flow 1:

Average throughput: 13.29 Mbit/s

95th percentile per-packet one-way delay: 136.556 ms

Loss rate: 1.00%

Run 9: Report of TaoVA-100x — Data Link

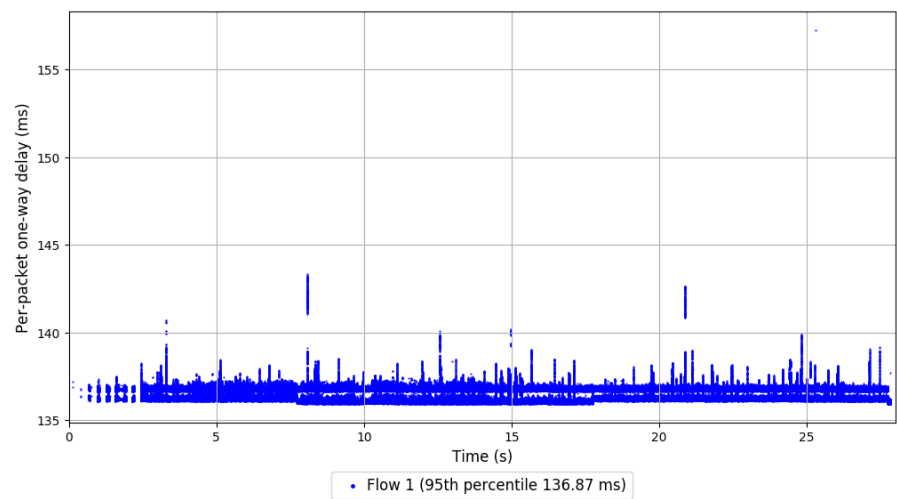
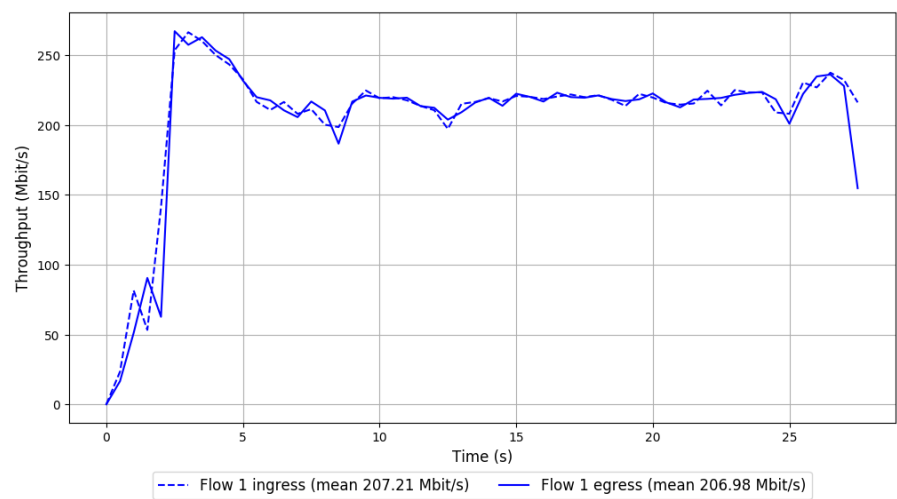


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-12-20 09:09:38
End at: 2017-12-20 09:10:08

# Below is generated by plot.py at 2017-12-20 11:57:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 206.98 Mbit/s
95th percentile per-packet one-way delay: 136.867 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 206.98 Mbit/s
95th percentile per-packet one-way delay: 136.867 ms
Loss rate: 1.09%
```

Run 10: Report of TaoVA-100x — Data Link



Run 1: Statistics of TCP Vegas

Start at: 2017-12-20 07:13:25

End at: 2017-12-20 07:13:55

Below is generated by plot.py at 2017-12-20 11:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 52.15 Mbit/s

95th percentile per-packet one-way delay: 137.859 ms

Loss rate: 1.01%

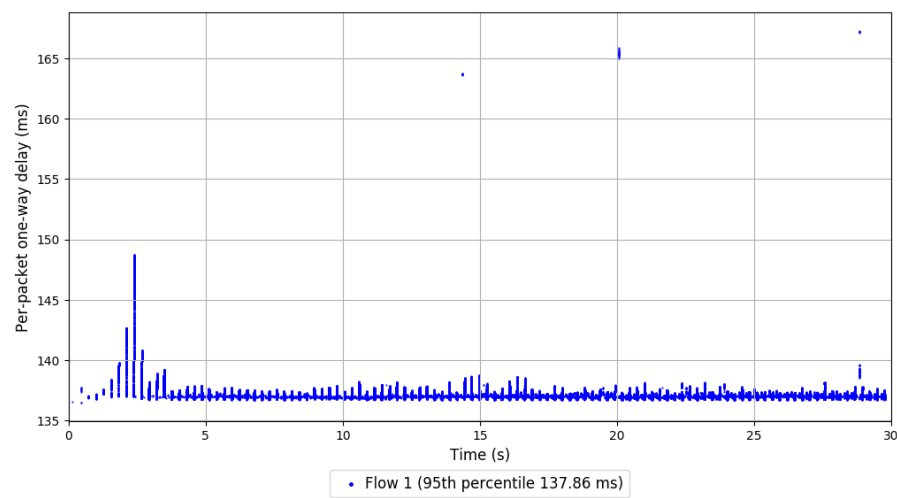
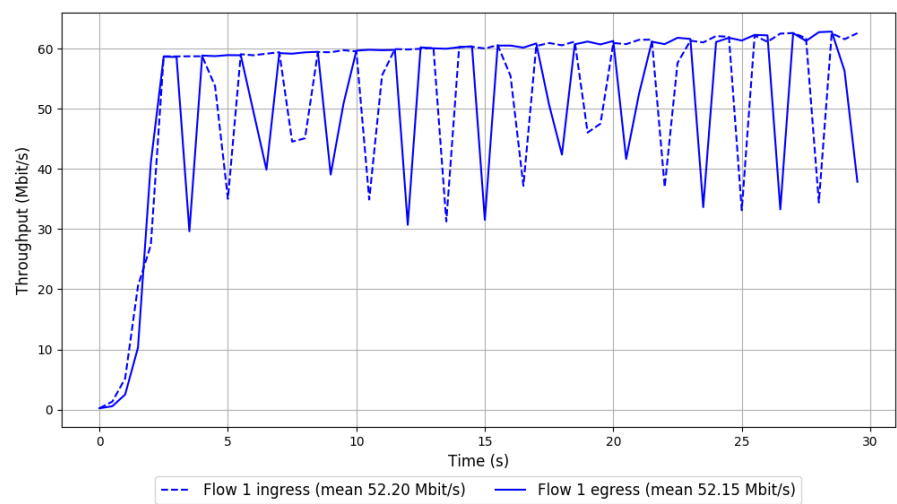
-- Flow 1:

Average throughput: 52.15 Mbit/s

95th percentile per-packet one-way delay: 137.859 ms

Loss rate: 1.01%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-12-20 07:26:31

End at: 2017-12-20 07:27:01

Below is generated by plot.py at 2017-12-20 11:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 31.78 Mbit/s

95th percentile per-packet one-way delay: 137.674 ms

Loss rate: 0.67%

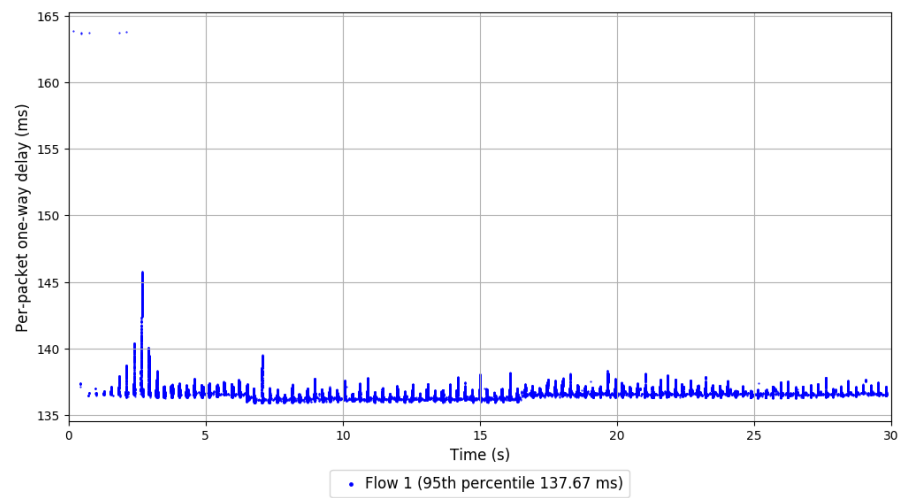
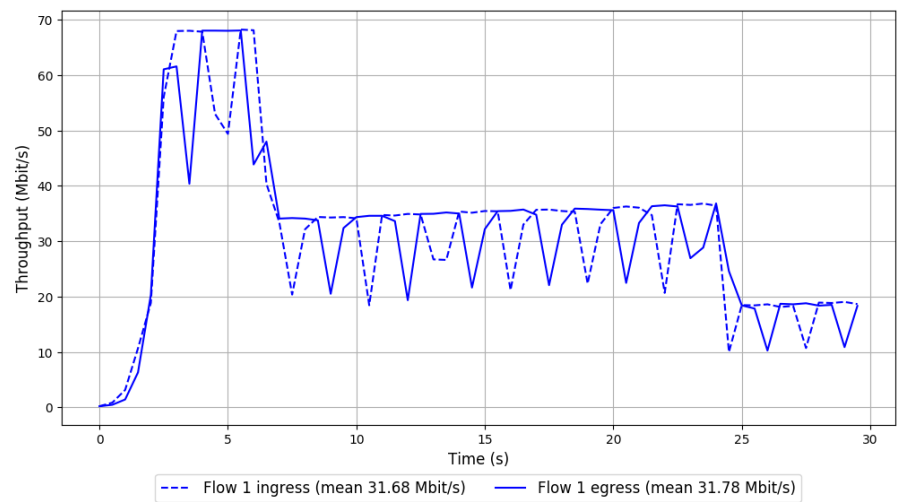
-- Flow 1:

Average throughput: 31.78 Mbit/s

95th percentile per-packet one-way delay: 137.674 ms

Loss rate: 0.67%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-12-20 07:39:49

End at: 2017-12-20 07:40:19

Below is generated by plot.py at 2017-12-20 11:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 64.18 Mbit/s

95th percentile per-packet one-way delay: 137.423 ms

Loss rate: 1.00%

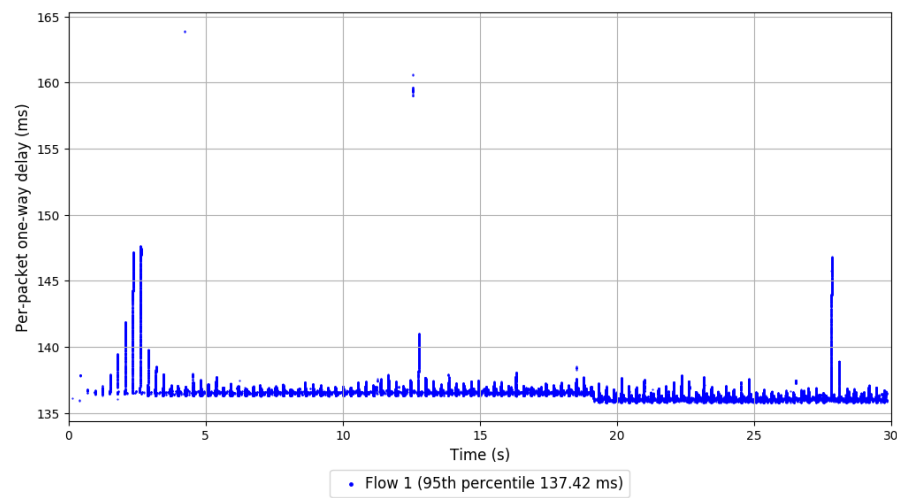
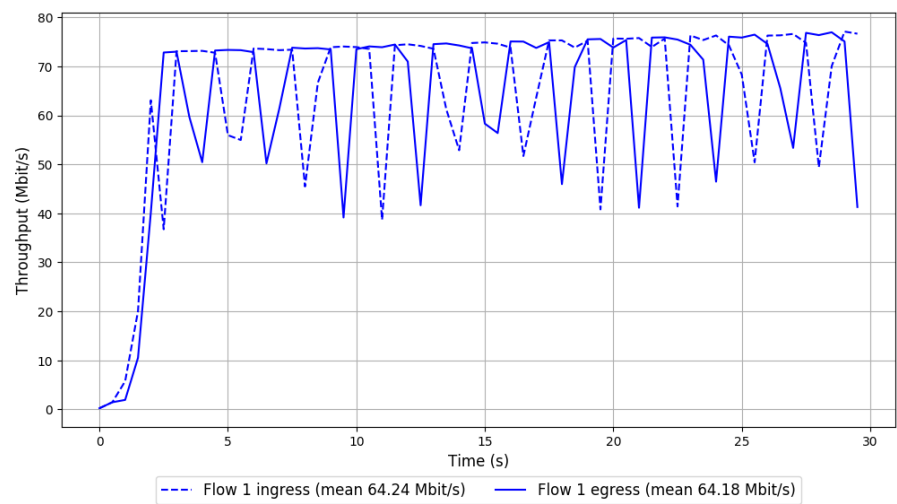
-- Flow 1:

Average throughput: 64.18 Mbit/s

95th percentile per-packet one-way delay: 137.423 ms

Loss rate: 1.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-12-20 07:52:54

End at: 2017-12-20 07:53:24

Below is generated by plot.py at 2017-12-20 11:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 59.02 Mbit/s

95th percentile per-packet one-way delay: 145.212 ms

Loss rate: 1.28%

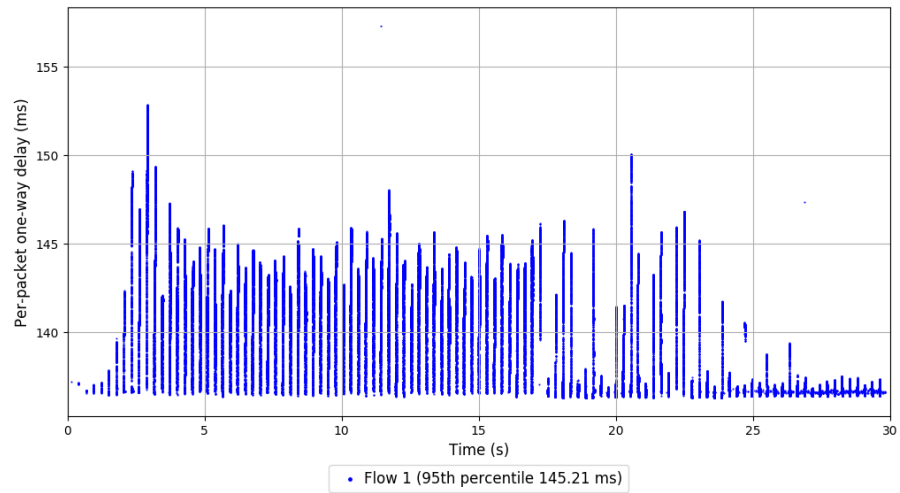
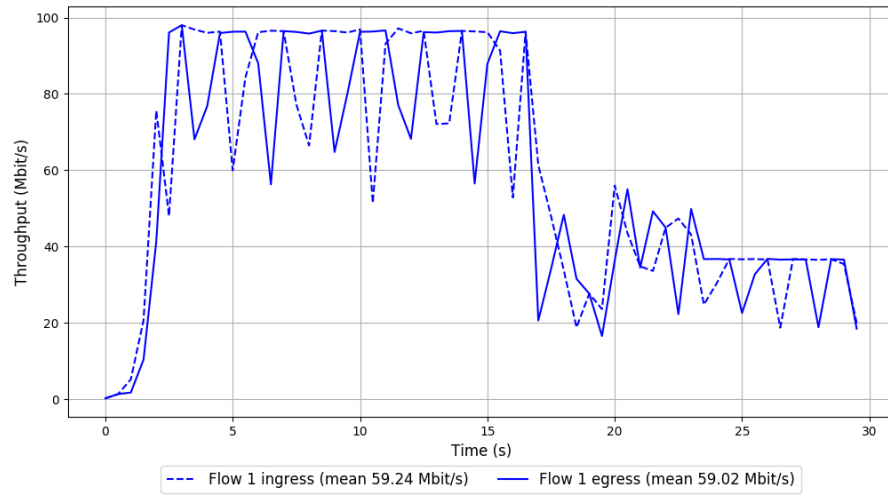
-- Flow 1:

Average throughput: 59.02 Mbit/s

95th percentile per-packet one-way delay: 145.212 ms

Loss rate: 1.28%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-12-20 08:05:33

End at: 2017-12-20 08:06:03

Below is generated by plot.py at 2017-12-20 11:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 32.79 Mbit/s

95th percentile per-packet one-way delay: 147.522 ms

Loss rate: 0.44%

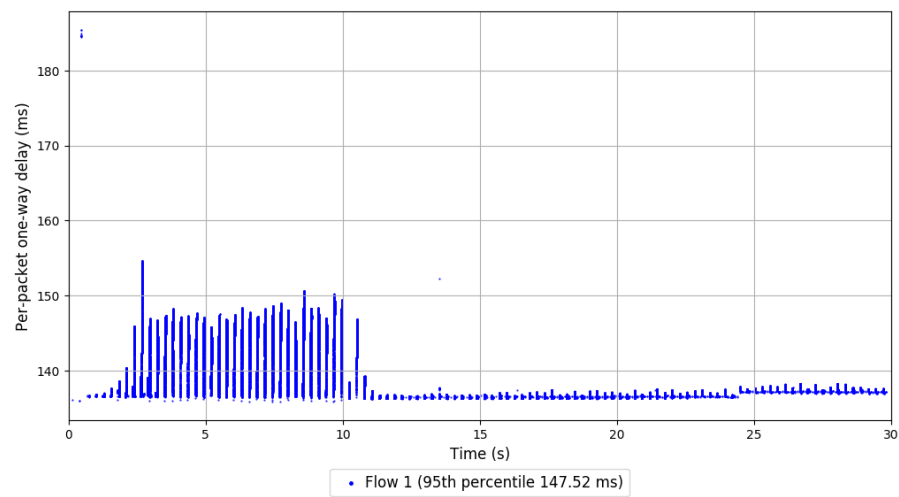
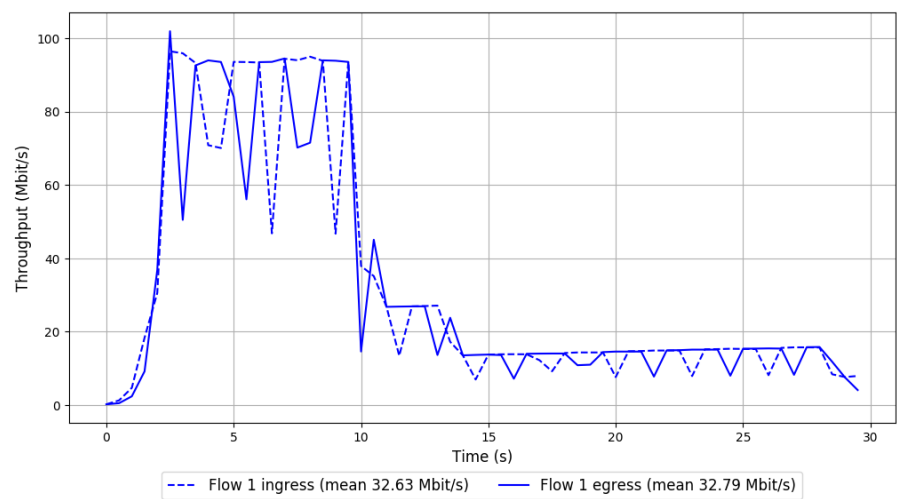
-- Flow 1:

Average throughput: 32.79 Mbit/s

95th percentile per-packet one-way delay: 147.522 ms

Loss rate: 0.44%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-12-20 08:18:40

End at: 2017-12-20 08:19:10

Below is generated by plot.py at 2017-12-20 11:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 25.48 Mbit/s

95th percentile per-packet one-way delay: 146.828 ms

Loss rate: 1.29%

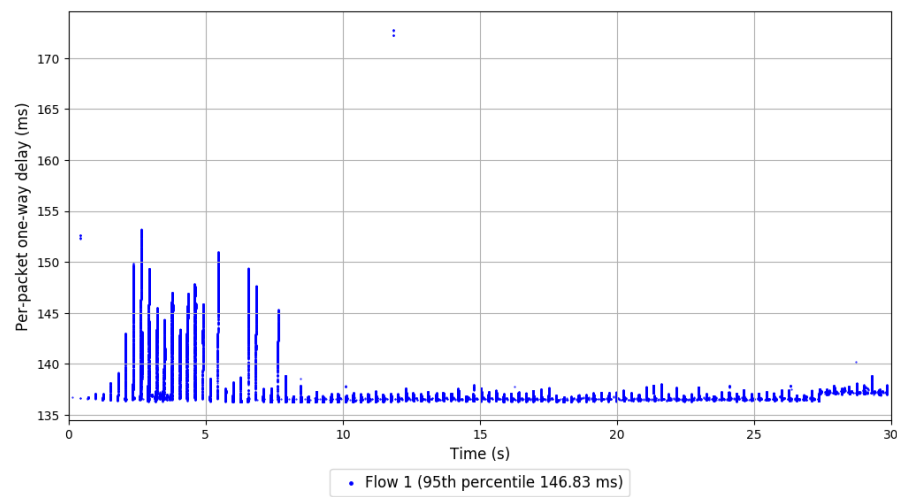
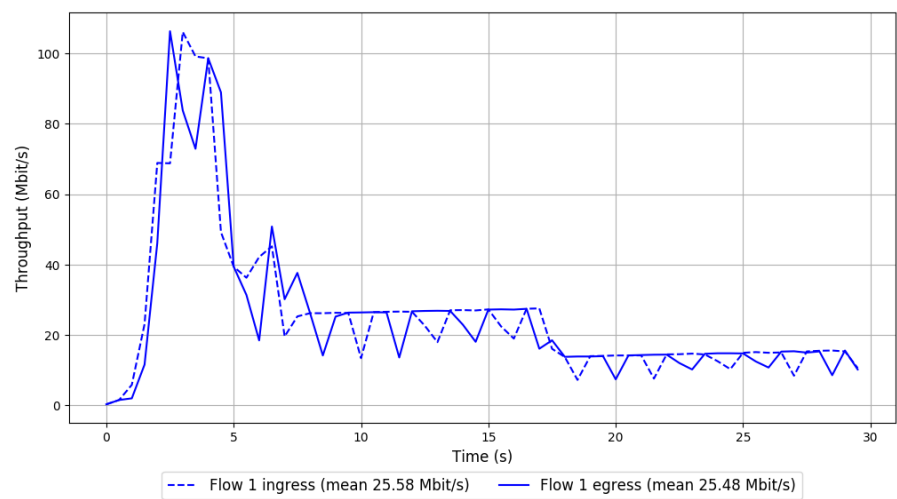
-- Flow 1:

Average throughput: 25.48 Mbit/s

95th percentile per-packet one-way delay: 146.828 ms

Loss rate: 1.29%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-12-20 08:31:52

End at: 2017-12-20 08:32:22

Below is generated by plot.py at 2017-12-20 11:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 13.64 Mbit/s

95th percentile per-packet one-way delay: 138.423 ms

Loss rate: 3.97%

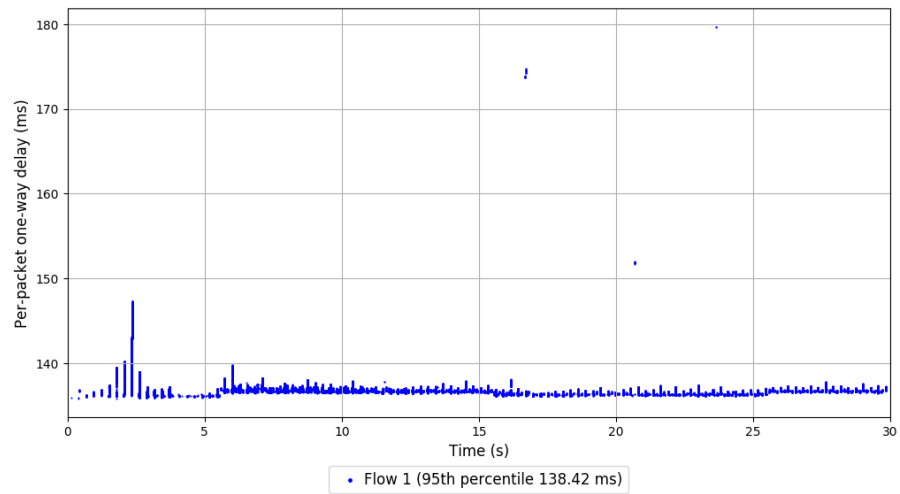
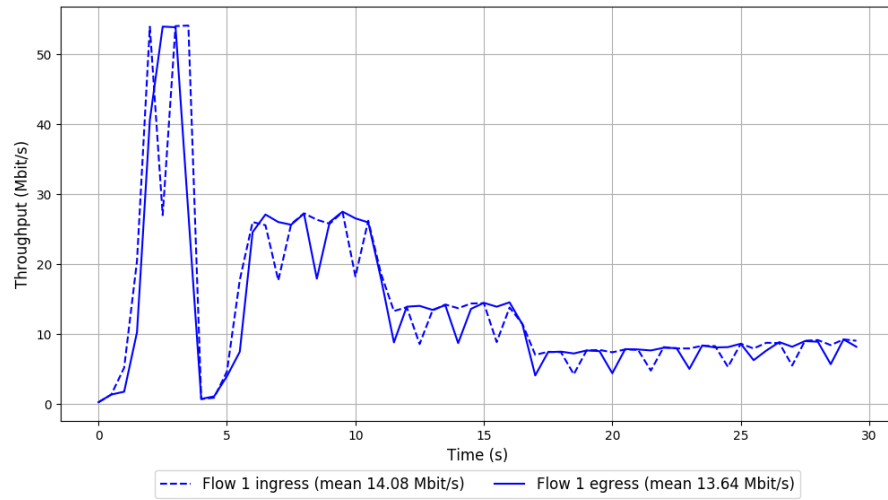
-- Flow 1:

Average throughput: 13.64 Mbit/s

95th percentile per-packet one-way delay: 138.423 ms

Loss rate: 3.97%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-12-20 08:44:50

End at: 2017-12-20 08:45:20

Below is generated by plot.py at 2017-12-20 11:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 21.75 Mbit/s

95th percentile per-packet one-way delay: 141.396 ms

Loss rate: 2.80%

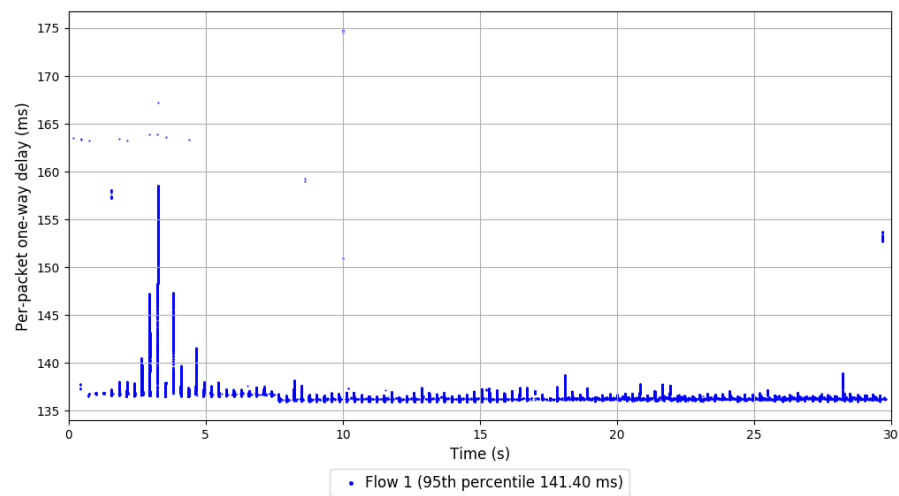
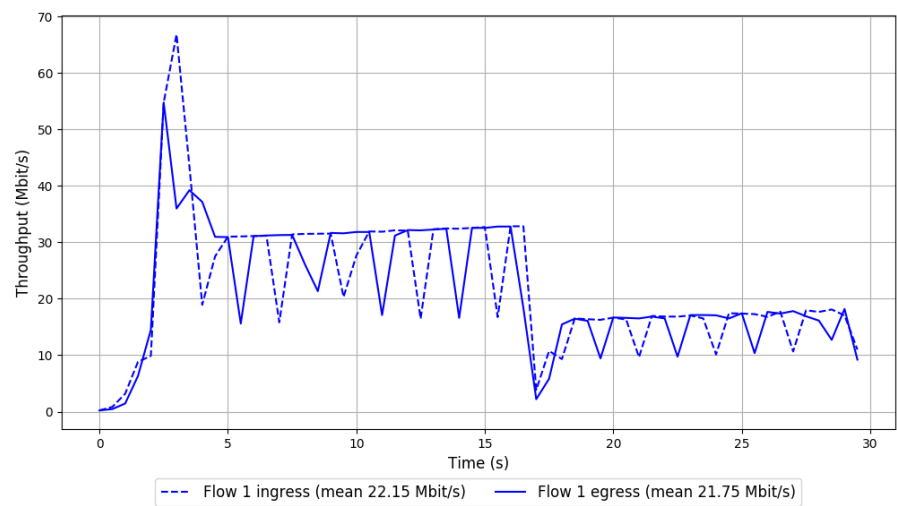
-- Flow 1:

Average throughput: 21.75 Mbit/s

95th percentile per-packet one-way delay: 141.396 ms

Loss rate: 2.80%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-12-20 08:57:39

End at: 2017-12-20 08:58:09

Below is generated by plot.py at 2017-12-20 11:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 34.43 Mbit/s

95th percentile per-packet one-way delay: 145.315 ms

Loss rate: 2.35%

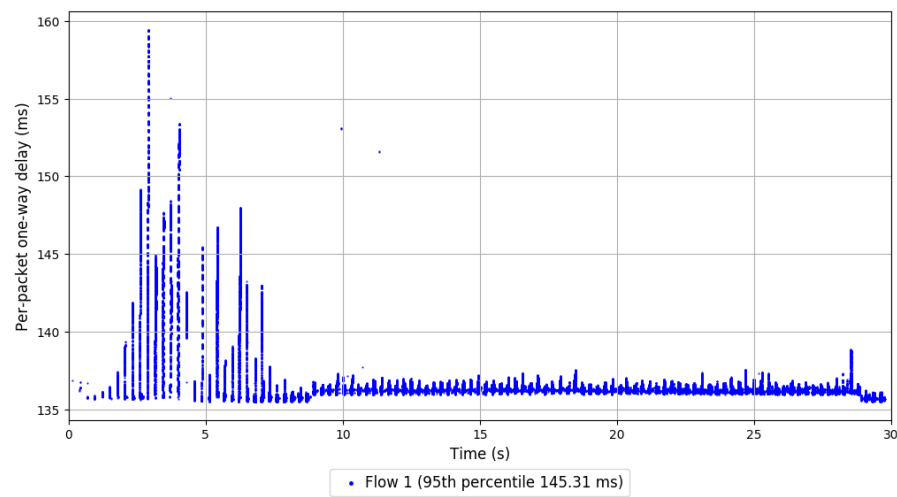
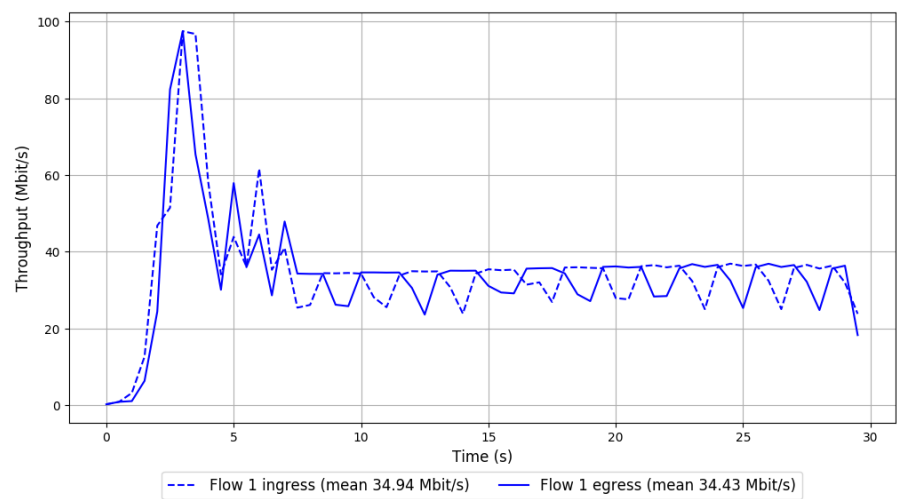
-- Flow 1:

Average throughput: 34.43 Mbit/s

95th percentile per-packet one-way delay: 145.315 ms

Loss rate: 2.35%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-12-20 09:10:41

End at: 2017-12-20 09:11:11

Below is generated by plot.py at 2017-12-20 11:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.44 Mbit/s

95th percentile per-packet one-way delay: 136.666 ms

Loss rate: 3.44%

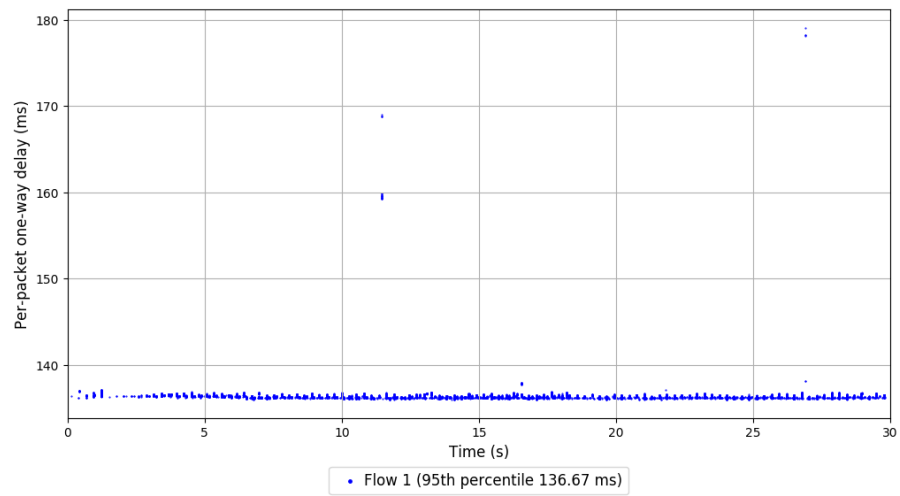
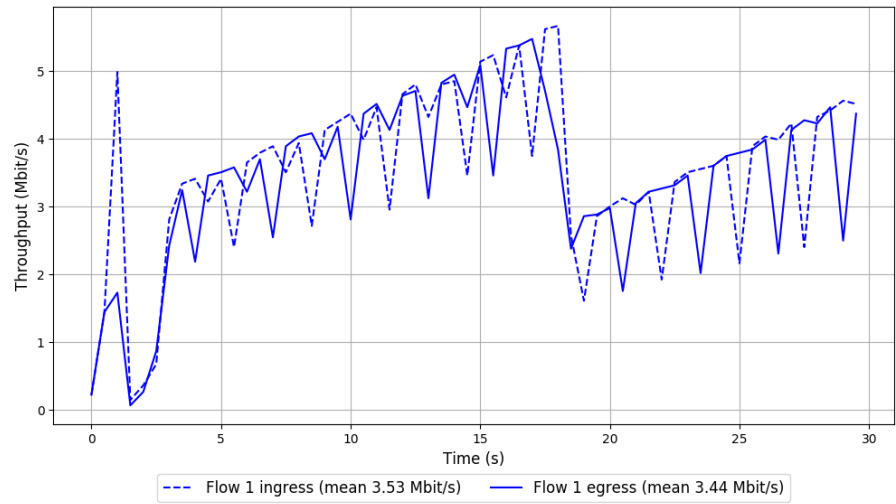
-- Flow 1:

Average throughput: 3.44 Mbit/s

95th percentile per-packet one-way delay: 136.666 ms

Loss rate: 3.44%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-12-20 07:20:01

End at: 2017-12-20 07:20:31

Below is generated by plot.py at 2017-12-20 11:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 142.90 Mbit/s

95th percentile per-packet one-way delay: 203.780 ms

Loss rate: 2.07%

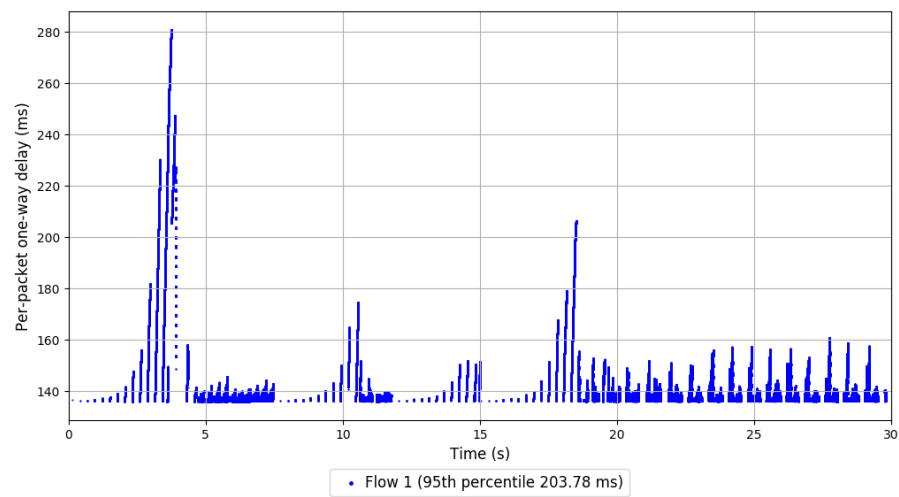
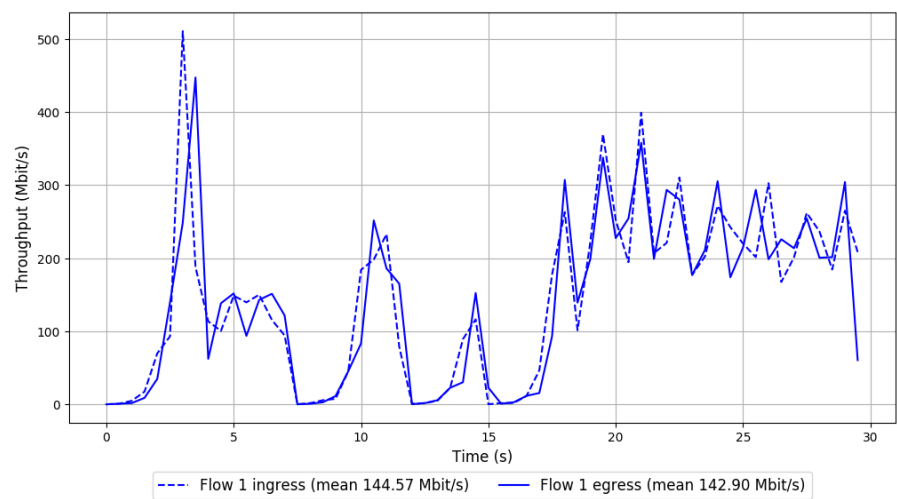
-- Flow 1:

Average throughput: 142.90 Mbit/s

95th percentile per-packet one-way delay: 203.780 ms

Loss rate: 2.07%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-12-20 07:33:09

End at: 2017-12-20 07:33:39

Below is generated by plot.py at 2017-12-20 11:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 199.51 Mbit/s

95th percentile per-packet one-way delay: 182.096 ms

Loss rate: 1.57%

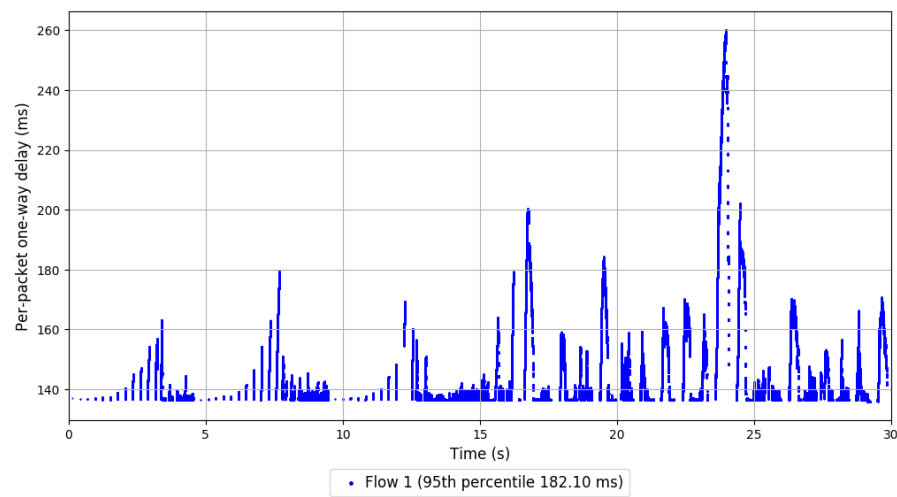
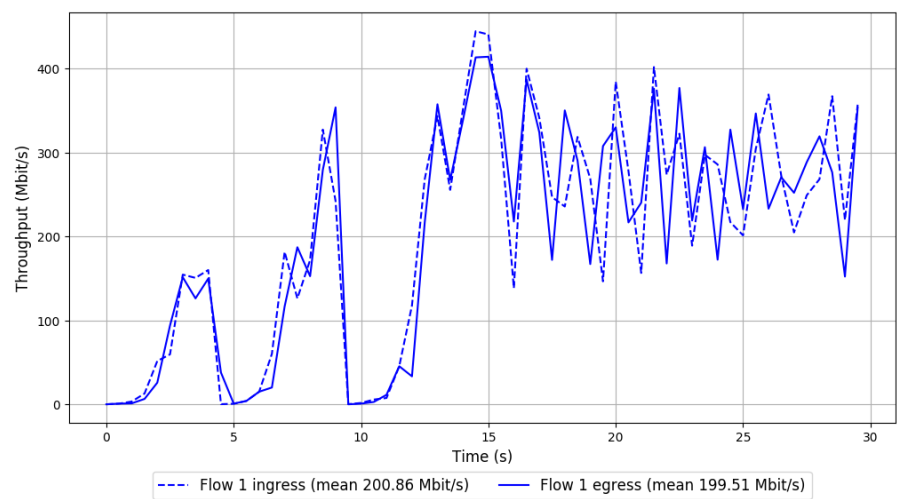
-- Flow 1:

Average throughput: 199.51 Mbit/s

95th percentile per-packet one-way delay: 182.096 ms

Loss rate: 1.57%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-12-20 07:46:26

End at: 2017-12-20 07:46:56

Below is generated by plot.py at 2017-12-20 11:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 134.95 Mbit/s

95th percentile per-packet one-way delay: 222.701 ms

Loss rate: 2.34%

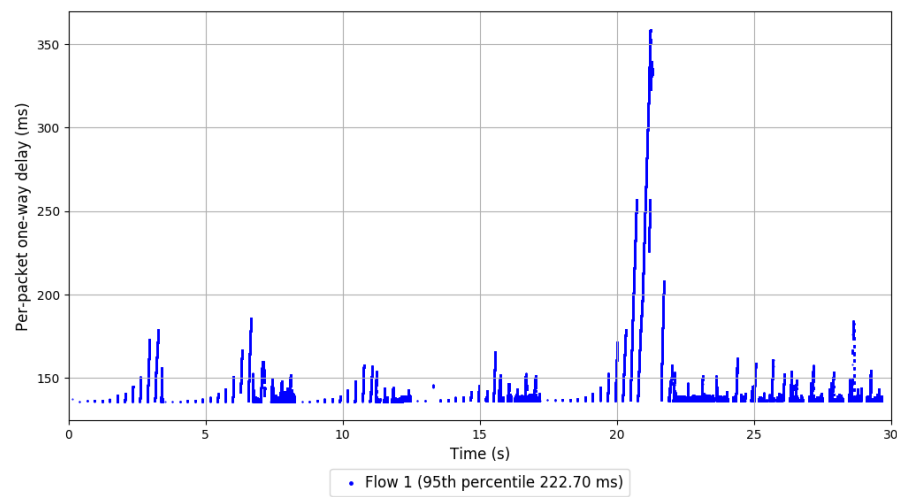
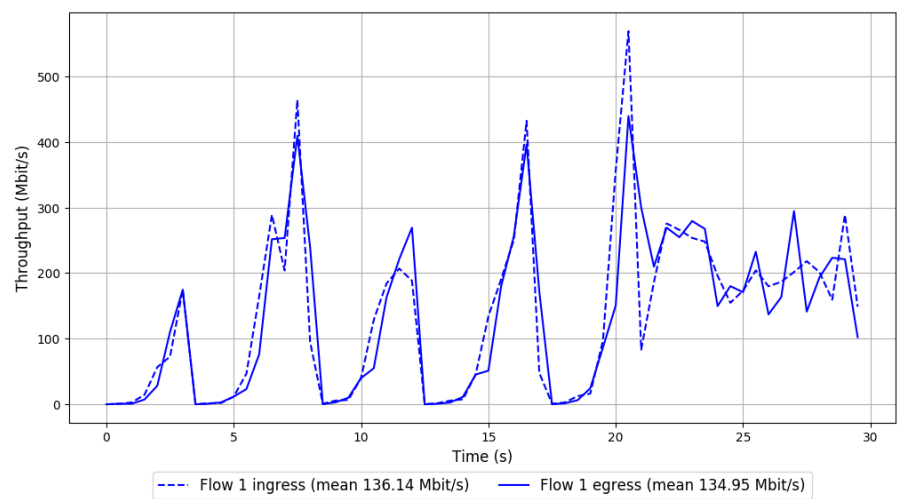
-- Flow 1:

Average throughput: 134.95 Mbit/s

95th percentile per-packet one-way delay: 222.701 ms

Loss rate: 2.34%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-12-20 07:59:28

End at: 2017-12-20 07:59:58

Below is generated by plot.py at 2017-12-20 11:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 130.76 Mbit/s

95th percentile per-packet one-way delay: 163.497 ms

Loss rate: 0.50%

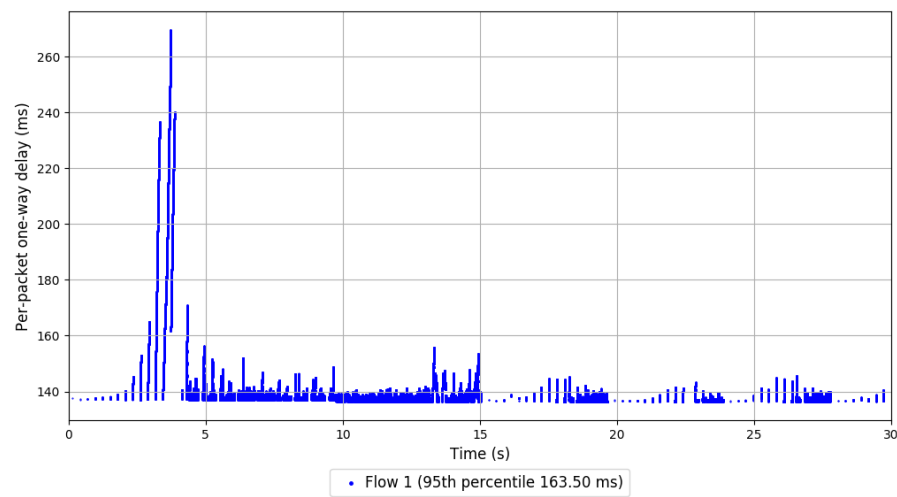
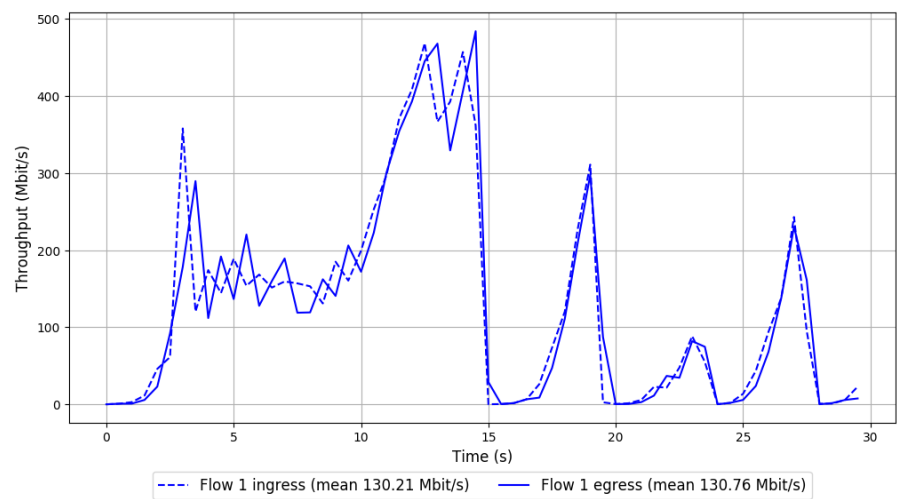
-- Flow 1:

Average throughput: 130.76 Mbit/s

95th percentile per-packet one-way delay: 163.497 ms

Loss rate: 0.50%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-12-20 08:12:06

End at: 2017-12-20 08:12:36

Below is generated by plot.py at 2017-12-20 11:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 165.43 Mbit/s

95th percentile per-packet one-way delay: 158.113 ms

Loss rate: 1.98%

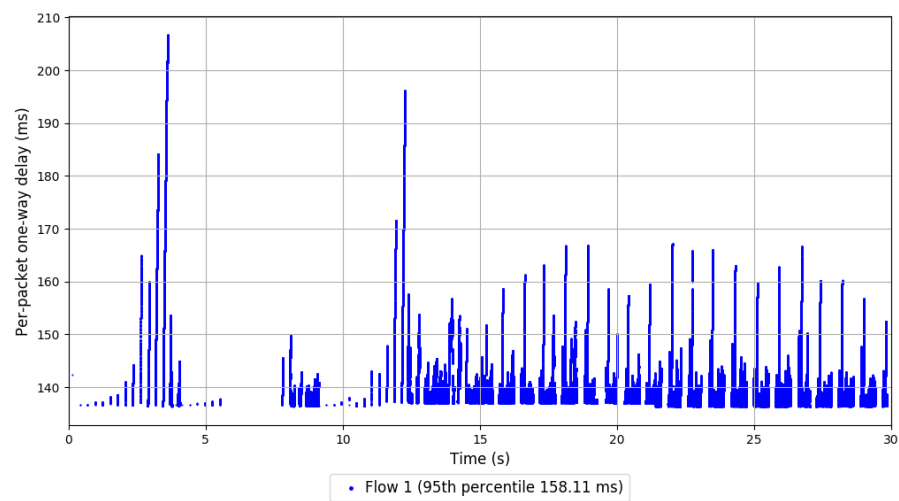
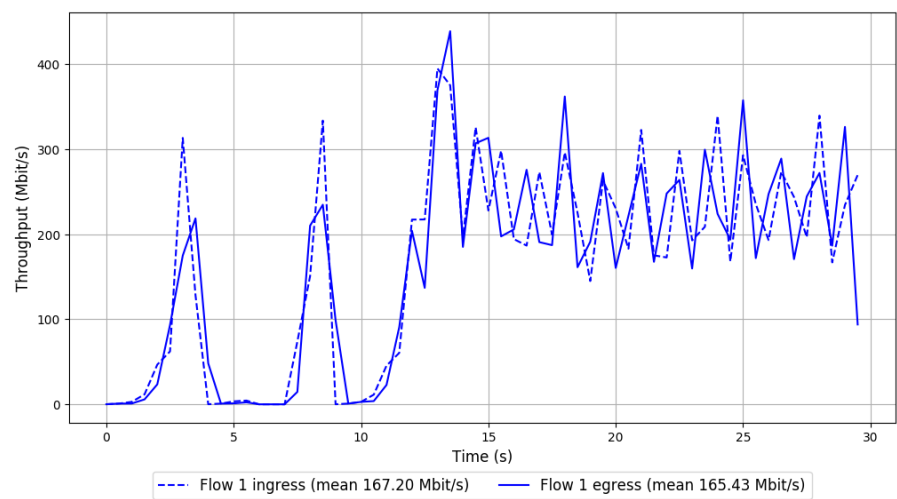
-- Flow 1:

Average throughput: 165.43 Mbit/s

95th percentile per-packet one-way delay: 158.113 ms

Loss rate: 1.98%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-12-20 08:25:19

End at: 2017-12-20 08:25:49

Below is generated by plot.py at 2017-12-20 11:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 194.08 Mbit/s

95th percentile per-packet one-way delay: 231.309 ms

Loss rate: 2.44%

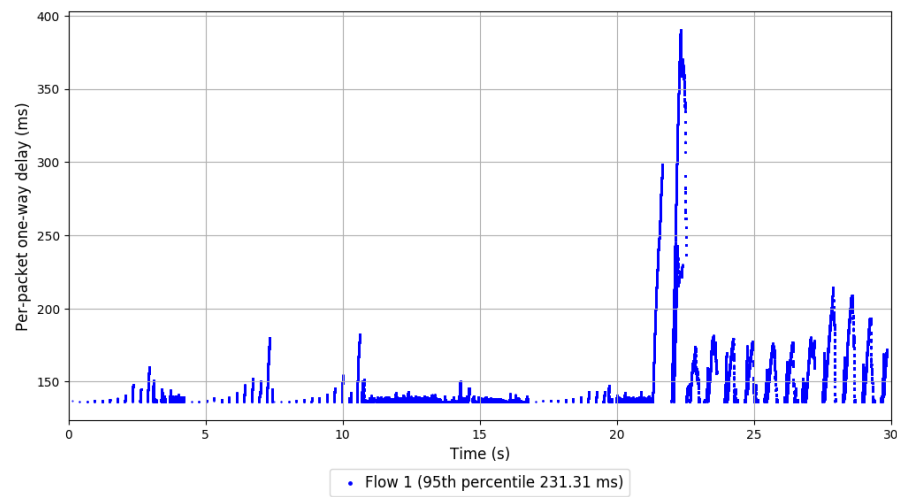
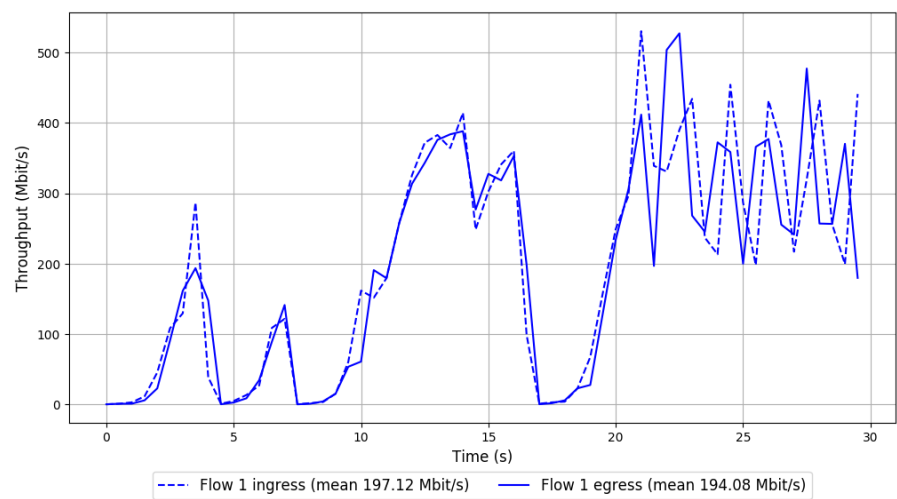
-- Flow 1:

Average throughput: 194.08 Mbit/s

95th percentile per-packet one-way delay: 231.309 ms

Loss rate: 2.44%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-12-20 08:38:30

End at: 2017-12-20 08:39:00

Below is generated by plot.py at 2017-12-20 11:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 82.98 Mbit/s

95th percentile per-packet one-way delay: 174.512 ms

Loss rate: 3.76%

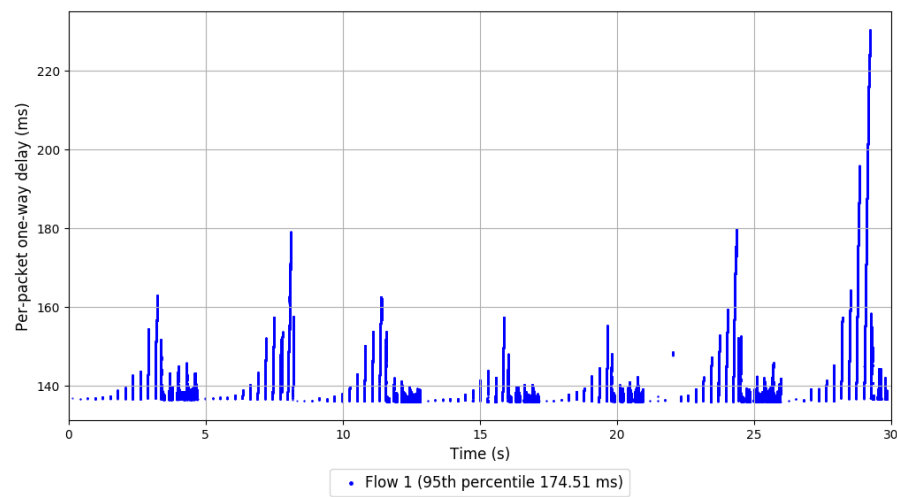
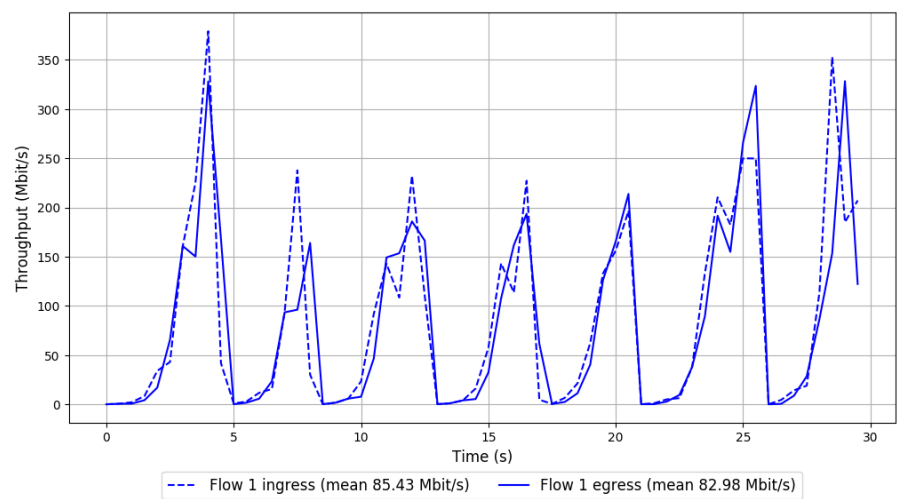
-- Flow 1:

Average throughput: 82.98 Mbit/s

95th percentile per-packet one-way delay: 174.512 ms

Loss rate: 3.76%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-12-20 08:51:28

End at: 2017-12-20 08:51:58

Below is generated by plot.py at 2017-12-20 11:57:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 153.28 Mbit/s

95th percentile per-packet one-way delay: 163.225 ms

Loss rate: 2.31%

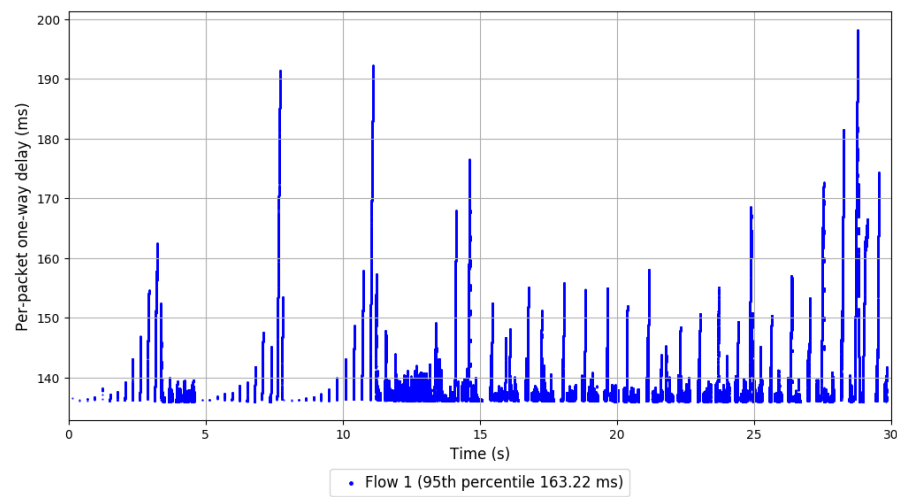
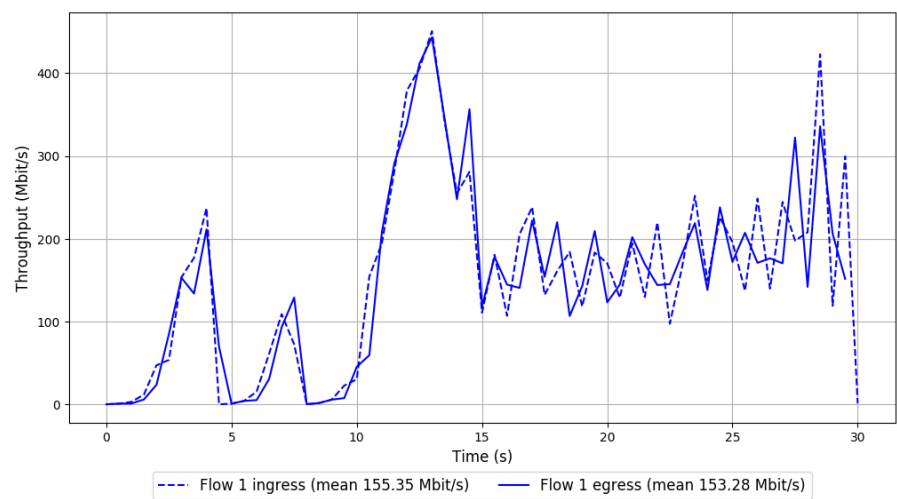
-- Flow 1:

Average throughput: 153.28 Mbit/s

95th percentile per-packet one-way delay: 163.225 ms

Loss rate: 2.31%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-12-20 09:04:12

End at: 2017-12-20 09:04:42

Below is generated by plot.py at 2017-12-20 11:57:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 134.97 Mbit/s

95th percentile per-packet one-way delay: 207.875 ms

Loss rate: 7.57%

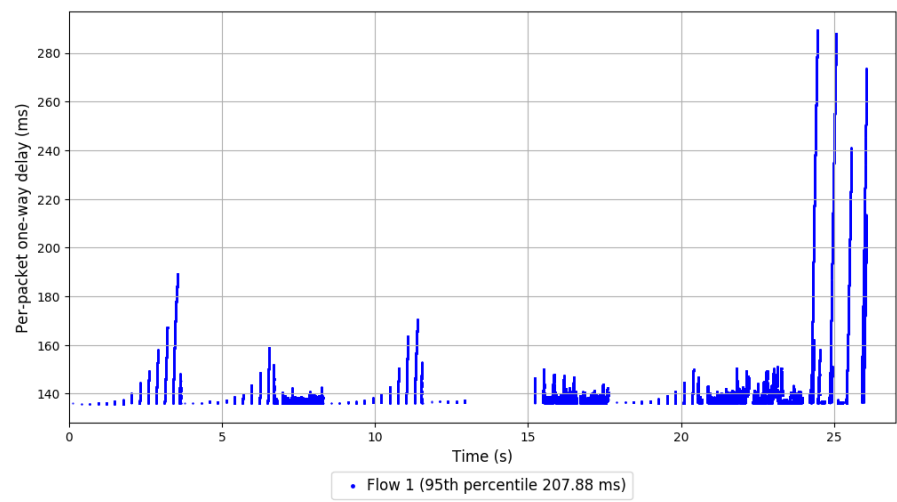
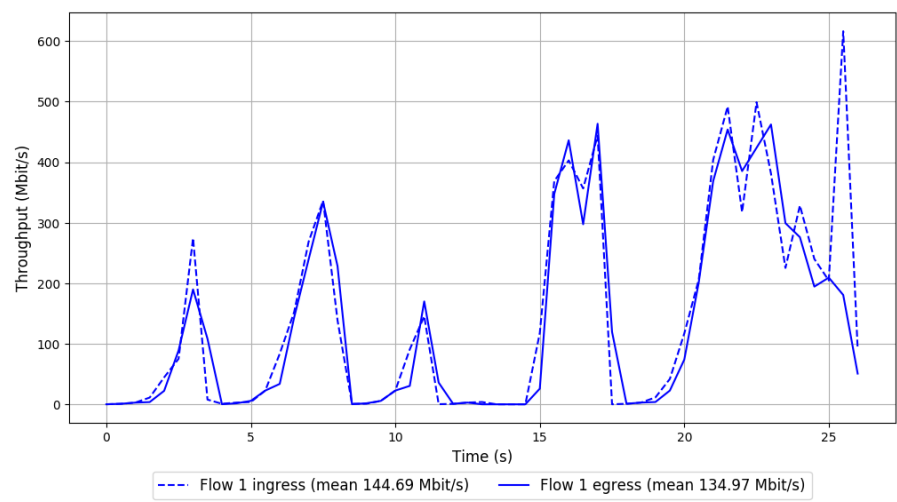
-- Flow 1:

Average throughput: 134.97 Mbit/s

95th percentile per-packet one-way delay: 207.875 ms

Loss rate: 7.57%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-12-20 09:17:09

End at: 2017-12-20 09:17:39

Below is generated by plot.py at 2017-12-20 11:58:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 145.46 Mbit/s

95th percentile per-packet one-way delay: 186.998 ms

Loss rate: 1.25%

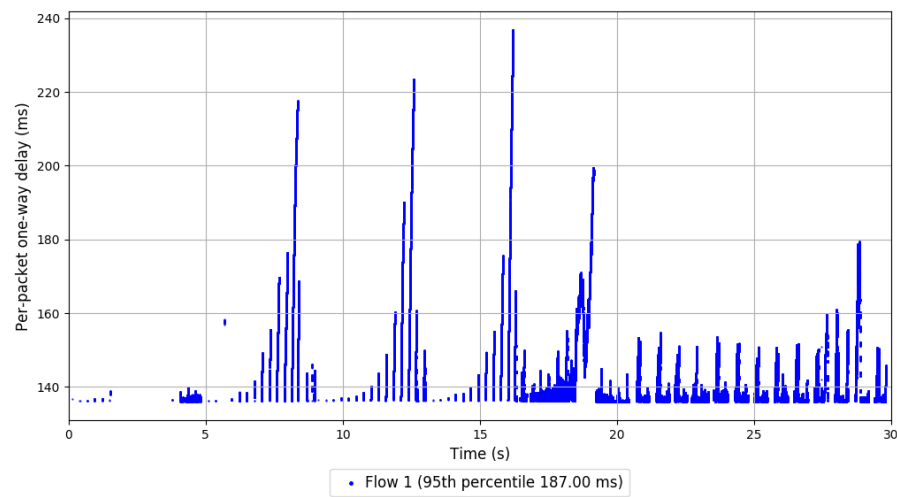
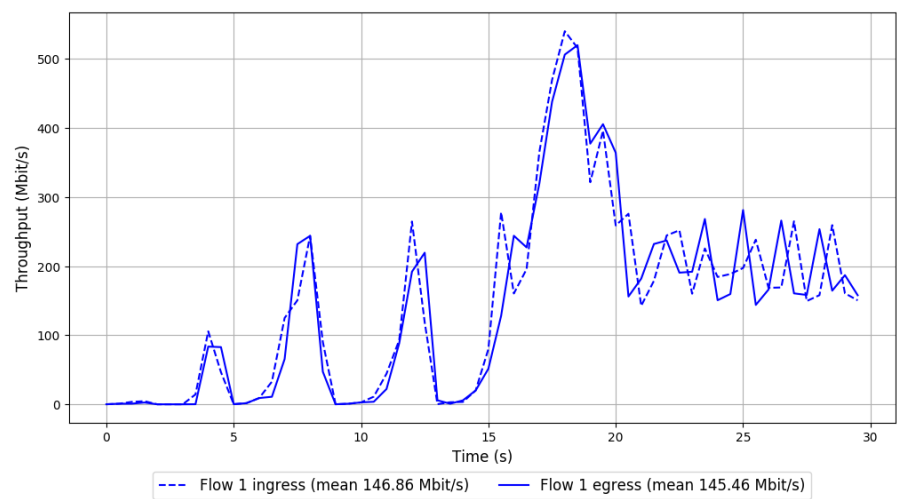
-- Flow 1:

Average throughput: 145.46 Mbit/s

95th percentile per-packet one-way delay: 186.998 ms

Loss rate: 1.25%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2017-12-20 07:09:25

End at: 2017-12-20 07:09:55

Below is generated by plot.py at 2017-12-20 11:58:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 70.07 Mbit/s

95th percentile per-packet one-way delay: 136.513 ms

Loss rate: 0.70%

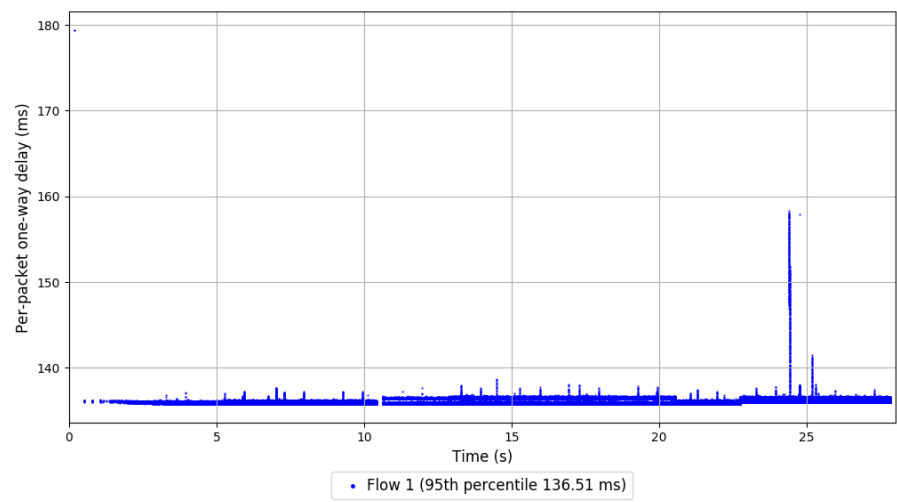
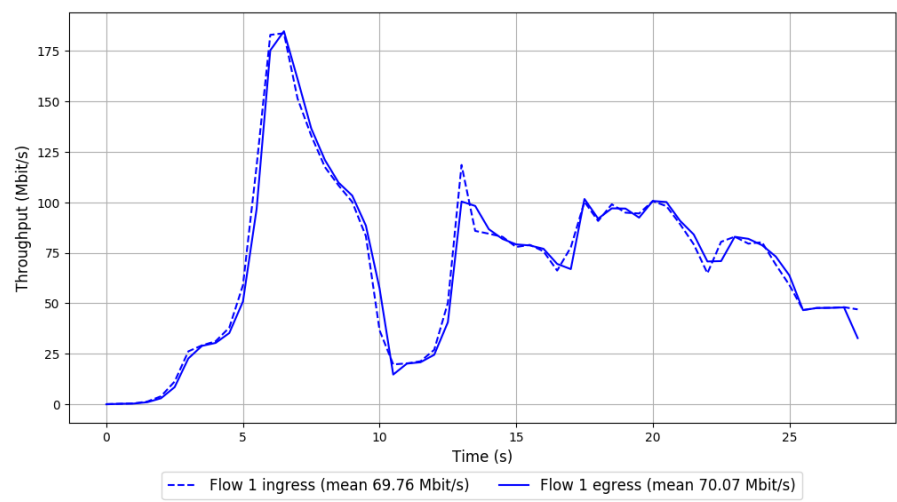
-- Flow 1:

Average throughput: 70.07 Mbit/s

95th percentile per-packet one-way delay: 136.513 ms

Loss rate: 0.70%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-12-20 07:22:30

End at: 2017-12-20 07:23:00

Below is generated by plot.py at 2017-12-20 11:58:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.09 Mbit/s

95th percentile per-packet one-way delay: 136.518 ms

Loss rate: 0.99%

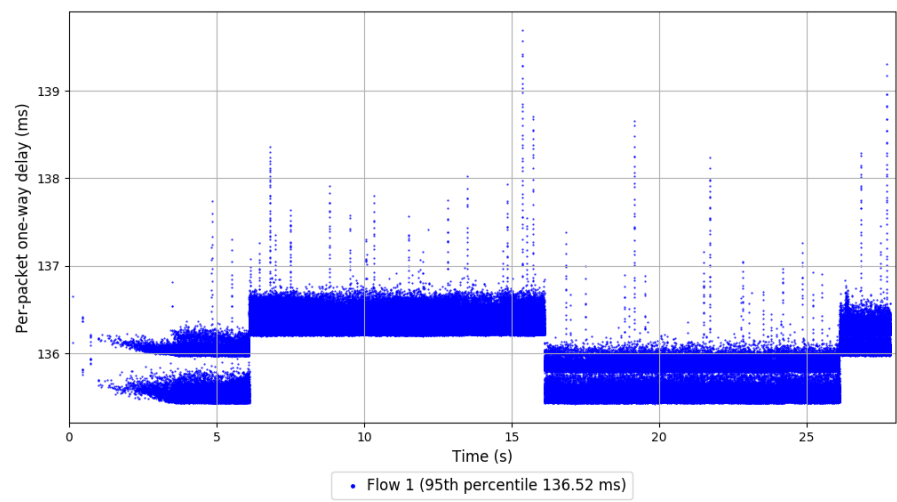
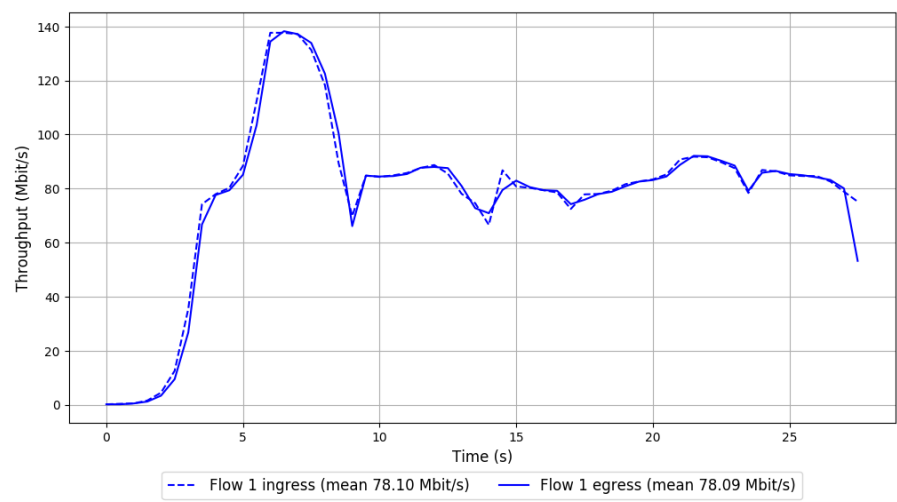
-- Flow 1:

Average throughput: 78.09 Mbit/s

95th percentile per-packet one-way delay: 136.518 ms

Loss rate: 0.99%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-12-20 07:35:45

End at: 2017-12-20 07:36:15

Below is generated by plot.py at 2017-12-20 11:58:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 73.21 Mbit/s

95th percentile per-packet one-way delay: 136.434 ms

Loss rate: 1.05%

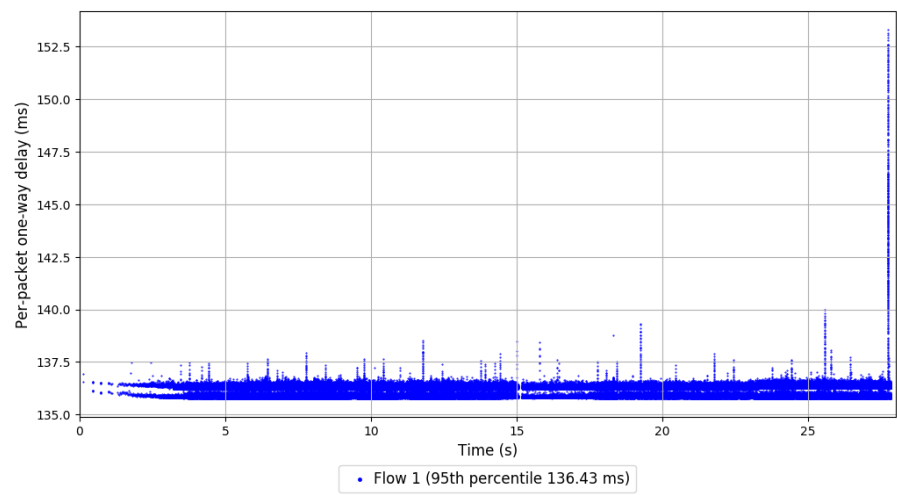
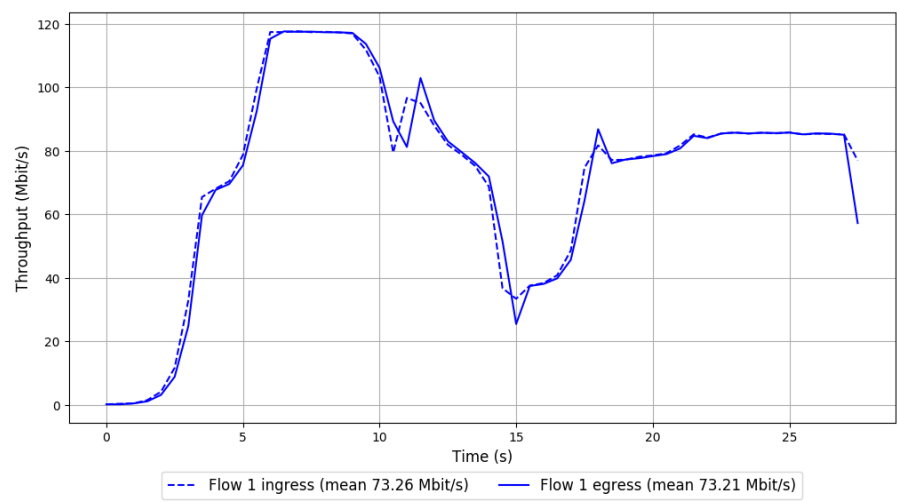
-- Flow 1:

Average throughput: 73.21 Mbit/s

95th percentile per-packet one-way delay: 136.434 ms

Loss rate: 1.05%

Run 3: Report of Copa — Data Link

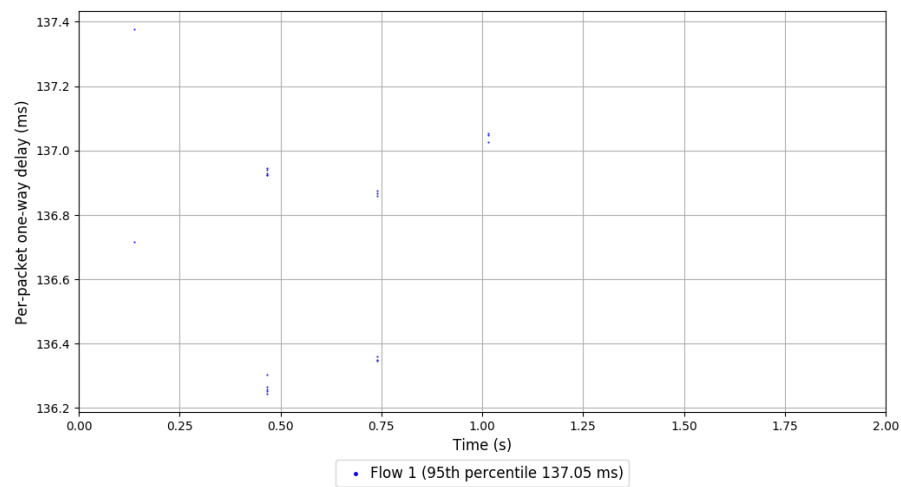
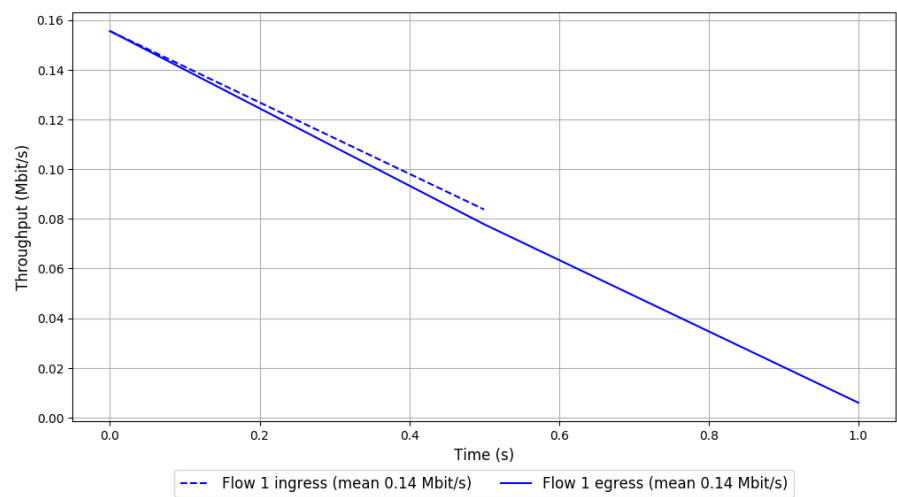


Run 4: Statistics of Copa

Start at: 2017-12-20 07:48:57

End at: 2017-12-20 07:49:27

Run 4: Report of Copa — Data Link

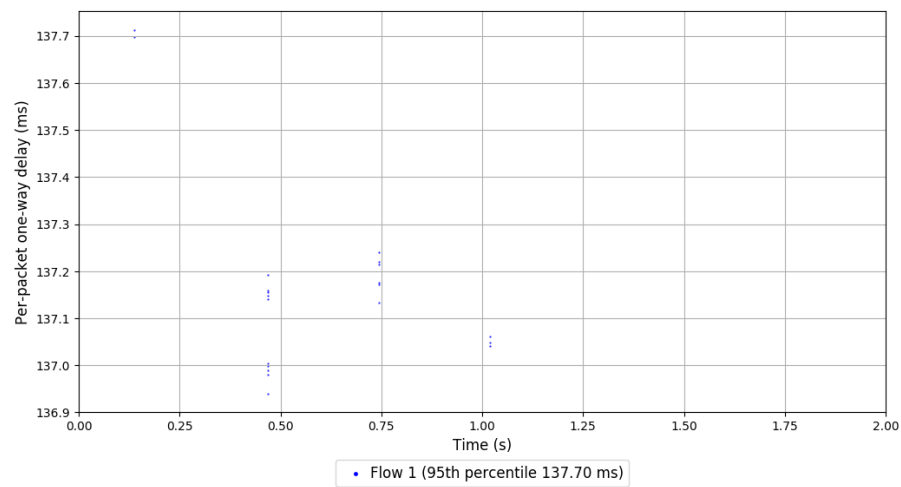
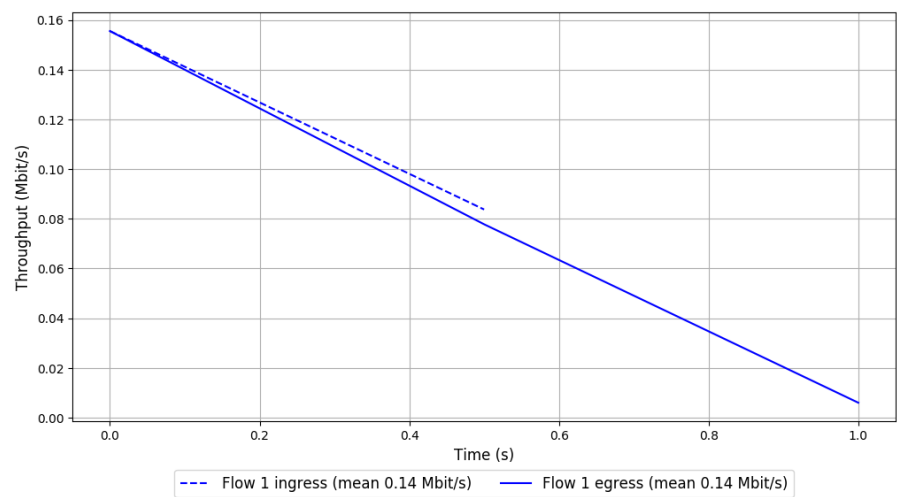


Run 5: Statistics of Copa

Start at: 2017-12-20 08:01:58

End at: 2017-12-20 08:02:28

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-12-20 08:14:37

End at: 2017-12-20 08:15:07

Below is generated by plot.py at 2017-12-20 11:58:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.07 Mbit/s

95th percentile per-packet one-way delay: 137.027 ms

Loss rate: 1.34%

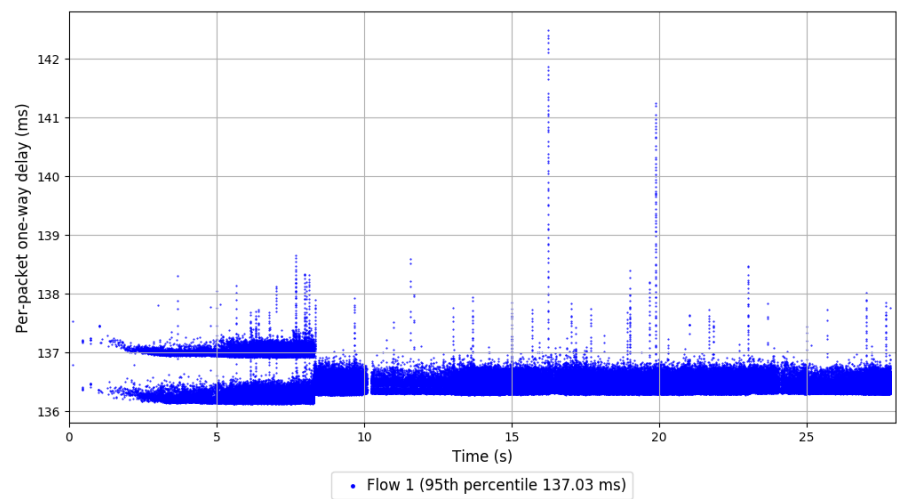
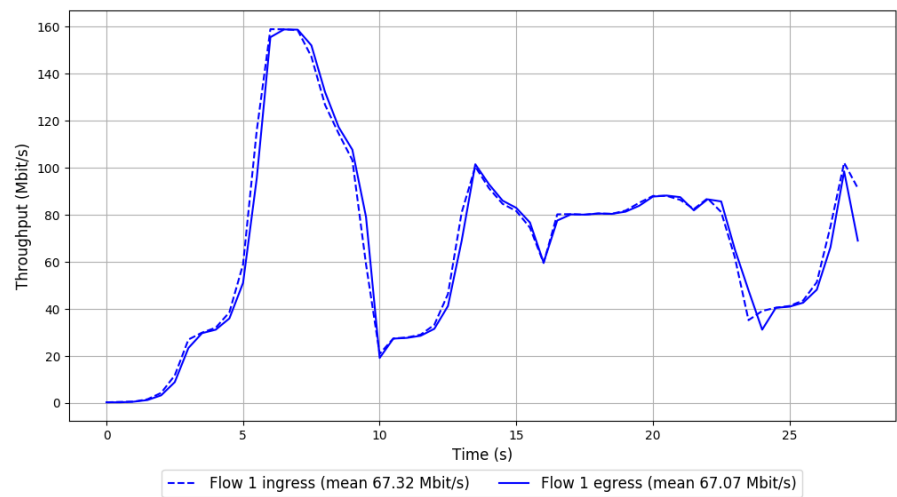
-- Flow 1:

Average throughput: 67.07 Mbit/s

95th percentile per-packet one-way delay: 137.027 ms

Loss rate: 1.34%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-12-20 08:27:52

End at: 2017-12-20 08:28:22

Below is generated by plot.py at 2017-12-20 11:59:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 69.67 Mbit/s

95th percentile per-packet one-way delay: 136.601 ms

Loss rate: 1.05%

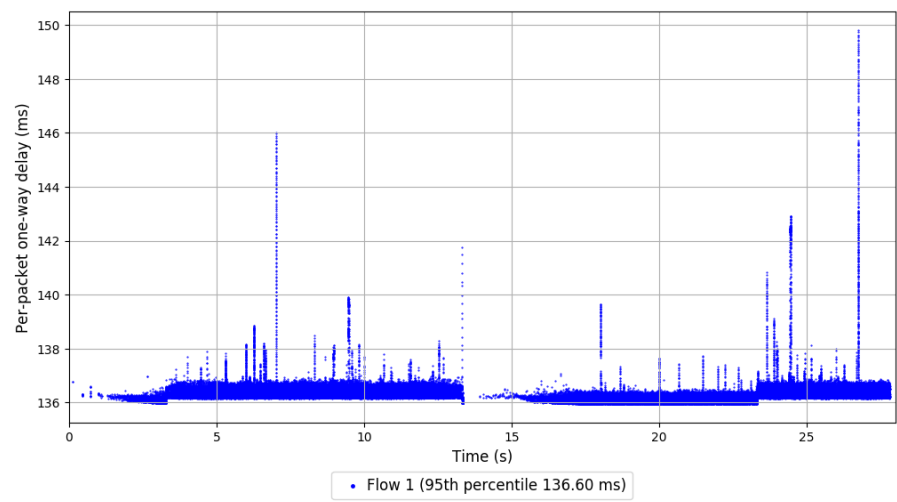
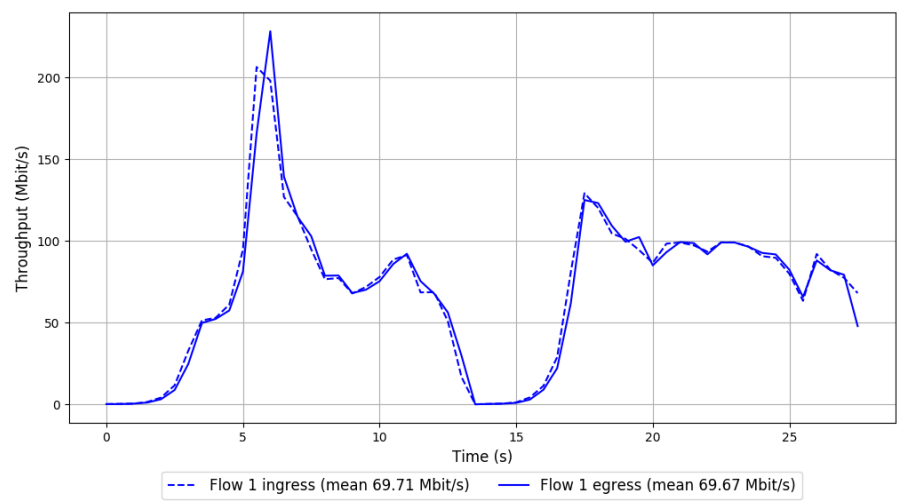
-- Flow 1:

Average throughput: 69.67 Mbit/s

95th percentile per-packet one-way delay: 136.601 ms

Loss rate: 1.05%

Run 7: Report of Copa — Data Link

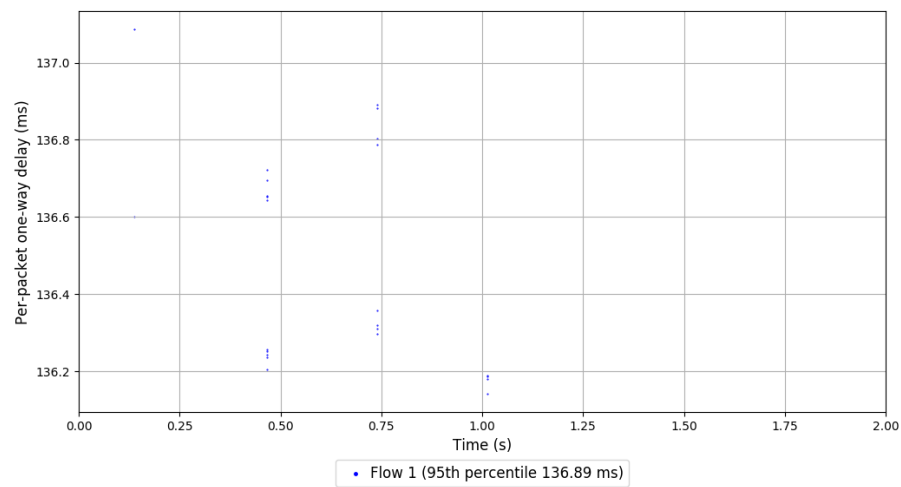
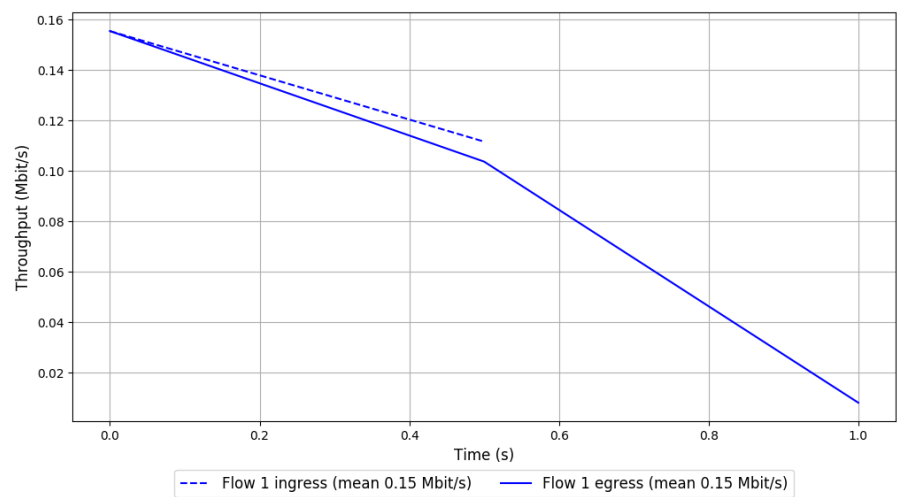


Run 8: Statistics of Copa

Start at: 2017-12-20 08:40:56

End at: 2017-12-20 08:41:26

Run 8: Report of Copa — Data Link

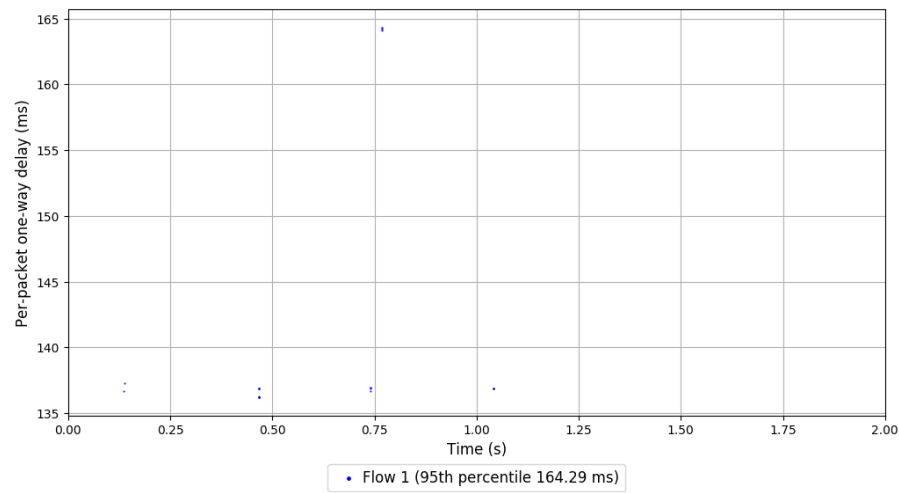
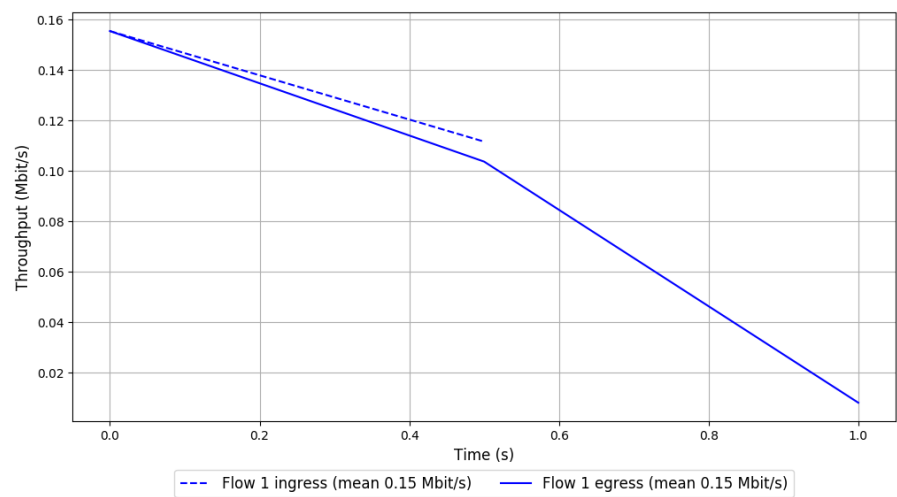


Run 9: Statistics of Copa

Start at: 2017-12-20 08:54:02

End at: 2017-12-20 08:54:32

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-12-20 09:06:42

End at: 2017-12-20 09:07:12

Below is generated by plot.py at 2017-12-20 11:59:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.06 Mbit/s

95th percentile per-packet one-way delay: 136.077 ms

Loss rate: 0.45%

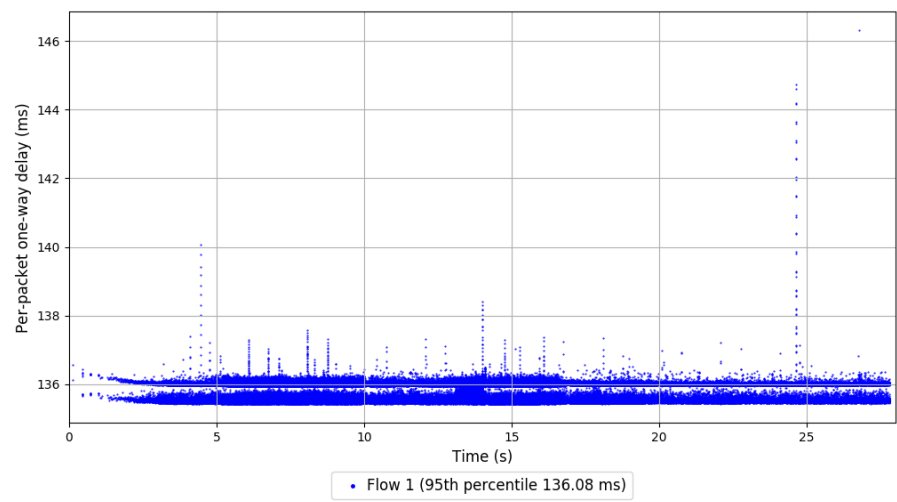
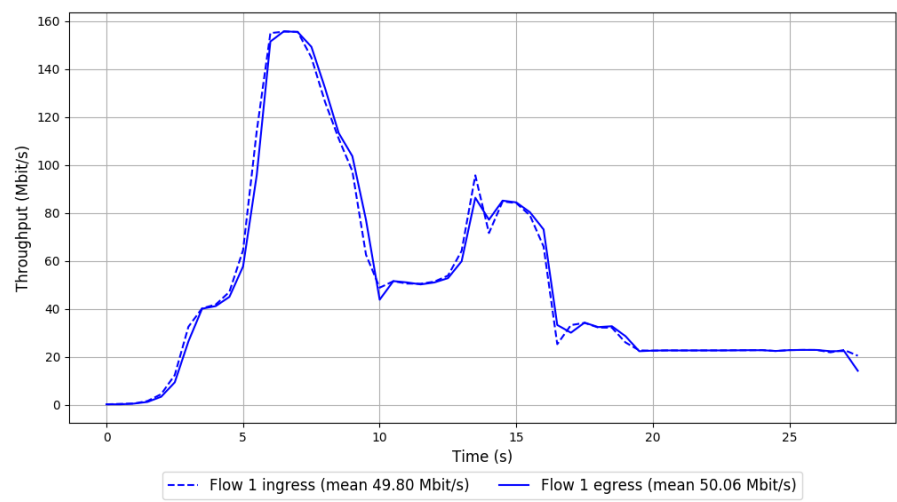
-- Flow 1:

Average throughput: 50.06 Mbit/s

95th percentile per-packet one-way delay: 136.077 ms

Loss rate: 0.45%

Run 10: Report of Copa — Data Link



Run 1: Statistics of FillP

Start at: 2017-12-20 07:17:28

End at: 2017-12-20 07:17:58

Below is generated by plot.py at 2017-12-20 12:15:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 973.59 Mbit/s

95th percentile per-packet one-way delay: 140.144 ms

Loss rate: 0.97%

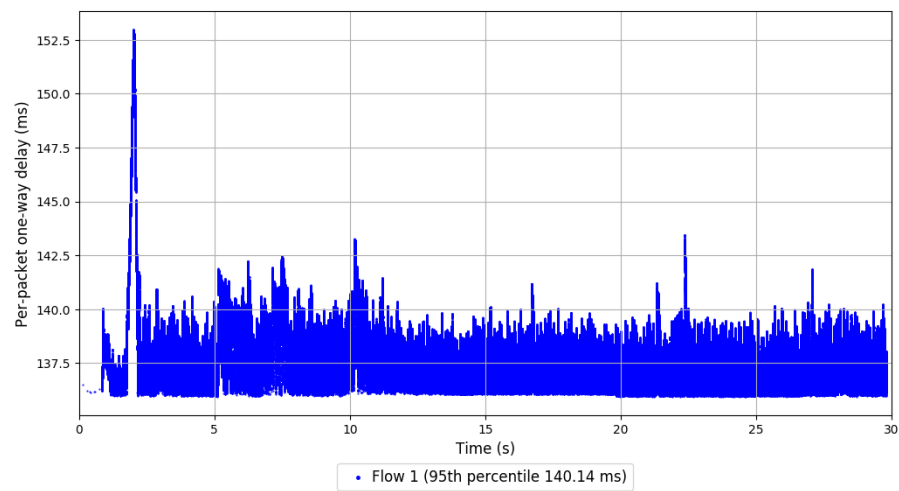
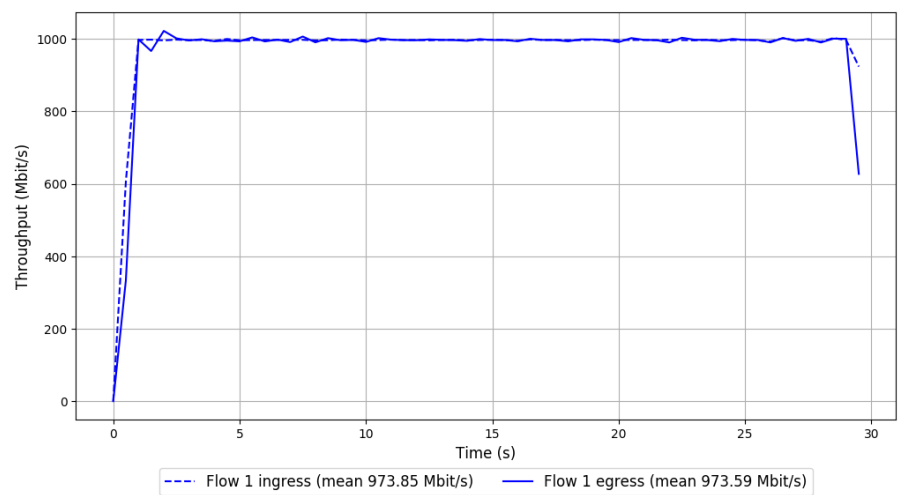
-- Flow 1:

Average throughput: 973.59 Mbit/s

95th percentile per-packet one-way delay: 140.144 ms

Loss rate: 0.97%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2017-12-20 07:30:38

End at: 2017-12-20 07:31:09

Below is generated by plot.py at 2017-12-20 12:15:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 935.26 Mbit/s

95th percentile per-packet one-way delay: 199.876 ms

Loss rate: 1.72%

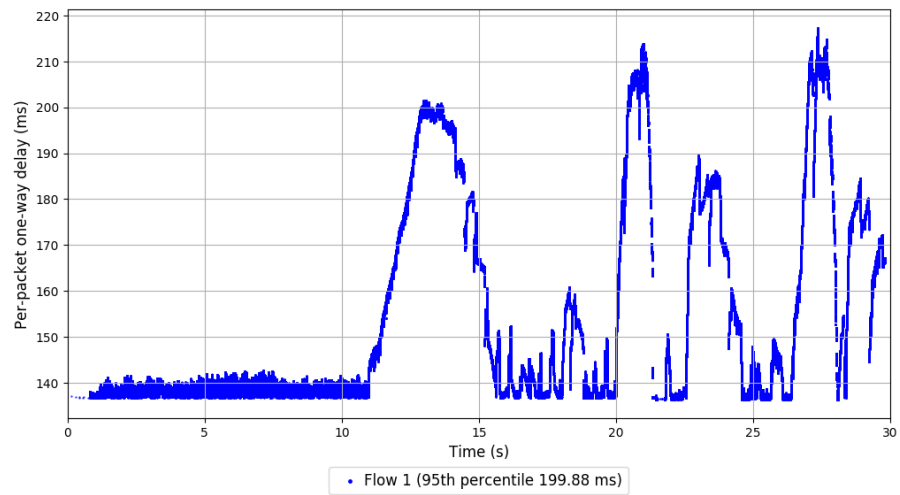
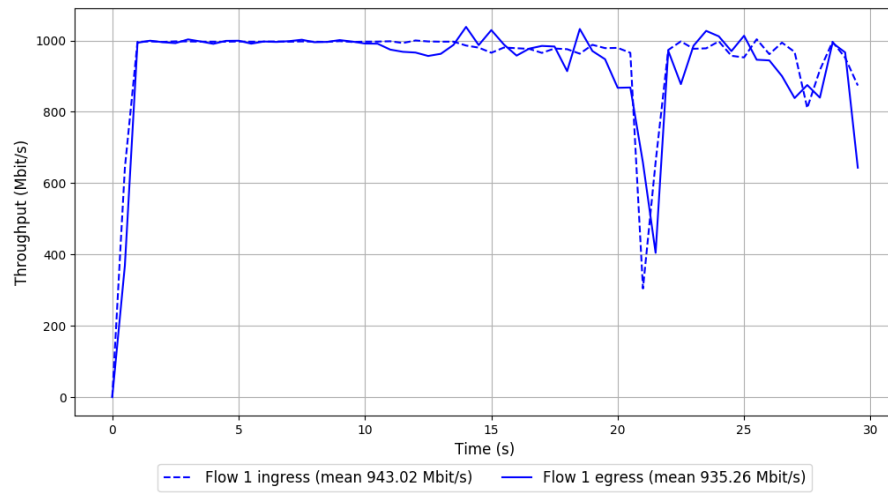
-- Flow 1:

Average throughput: 935.26 Mbit/s

95th percentile per-packet one-way delay: 199.876 ms

Loss rate: 1.72%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2017-12-20 07:43:53

End at: 2017-12-20 07:44:23

Below is generated by plot.py at 2017-12-20 12:15:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 928.32 Mbit/s

95th percentile per-packet one-way delay: 195.274 ms

Loss rate: 2.64%

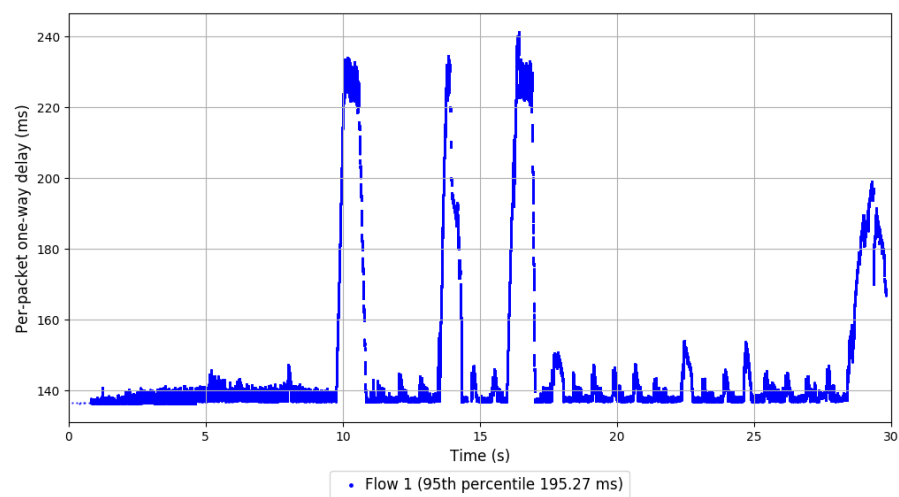
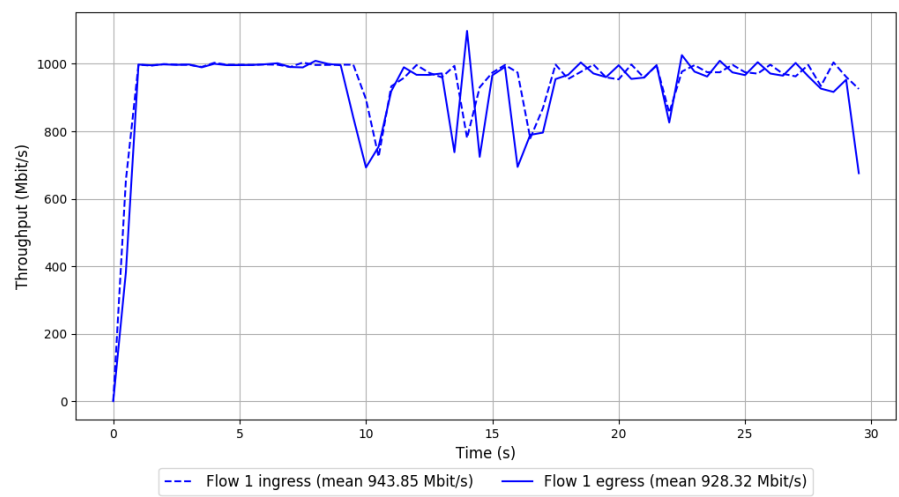
-- Flow 1:

Average throughput: 928.32 Mbit/s

95th percentile per-packet one-way delay: 195.274 ms

Loss rate: 2.64%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2017-12-20 07:56:57

End at: 2017-12-20 07:57:27

Below is generated by plot.py at 2017-12-20 12:15:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 934.13 Mbit/s

95th percentile per-packet one-way delay: 144.322 ms

Loss rate: 1.38%

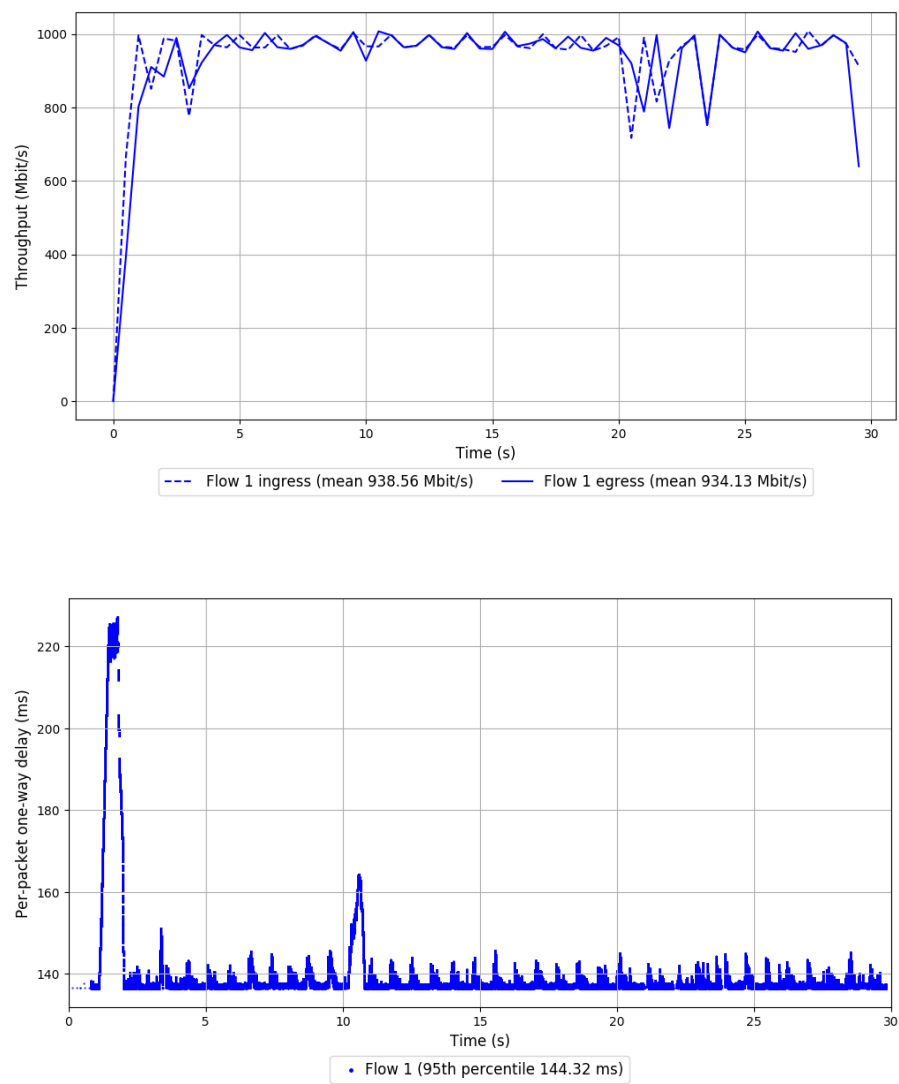
-- Flow 1:

Average throughput: 934.13 Mbit/s

95th percentile per-packet one-way delay: 144.322 ms

Loss rate: 1.38%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2017-12-20 08:09:35

End at: 2017-12-20 08:10:05

Below is generated by plot.py at 2017-12-20 12:15:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 921.70 Mbit/s

95th percentile per-packet one-way delay: 216.485 ms

Loss rate: 1.95%

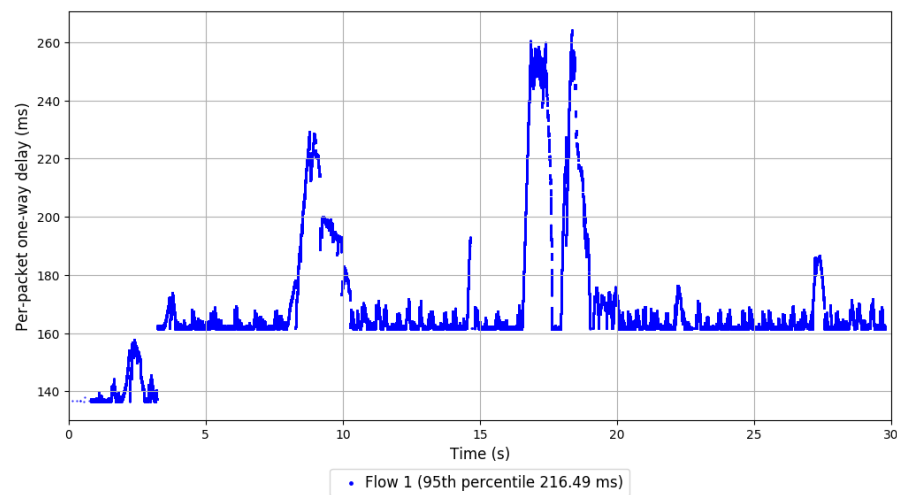
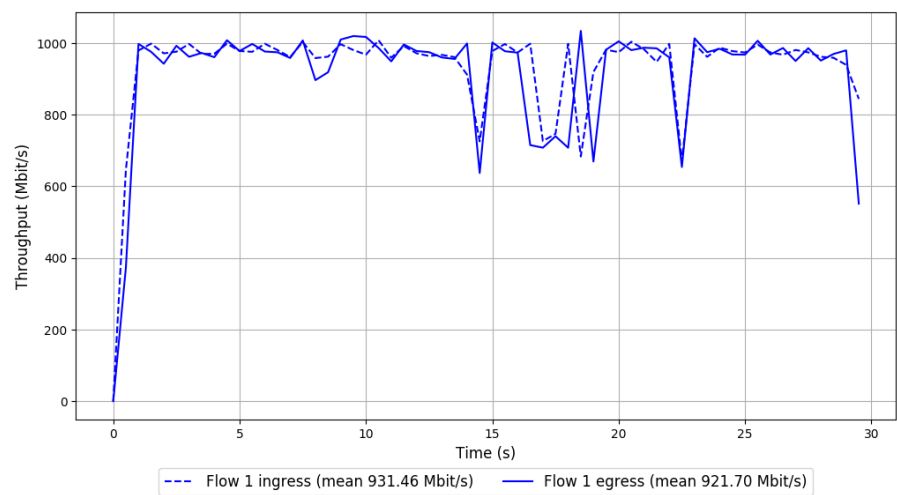
-- Flow 1:

Average throughput: 921.70 Mbit/s

95th percentile per-packet one-way delay: 216.485 ms

Loss rate: 1.95%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2017-12-20 08:22:44

End at: 2017-12-20 08:23:14

Below is generated by plot.py at 2017-12-20 12:16:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 939.51 Mbit/s

95th percentile per-packet one-way delay: 145.267 ms

Loss rate: 0.91%

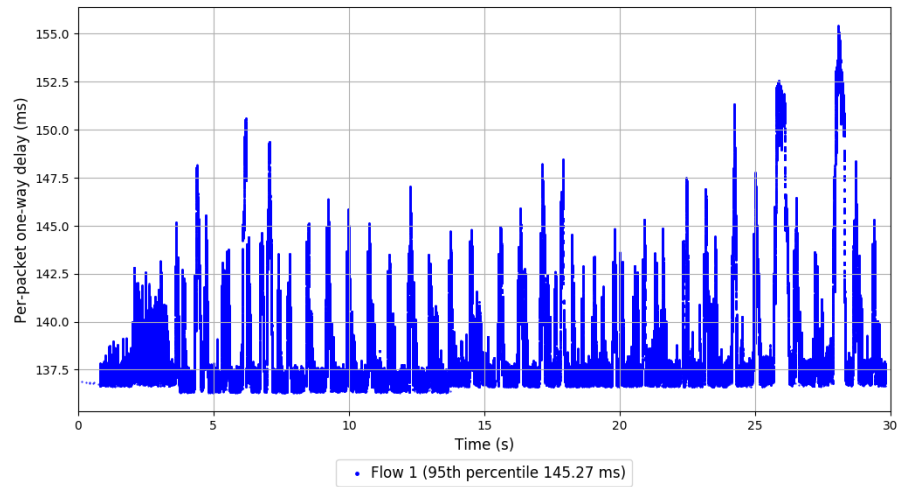
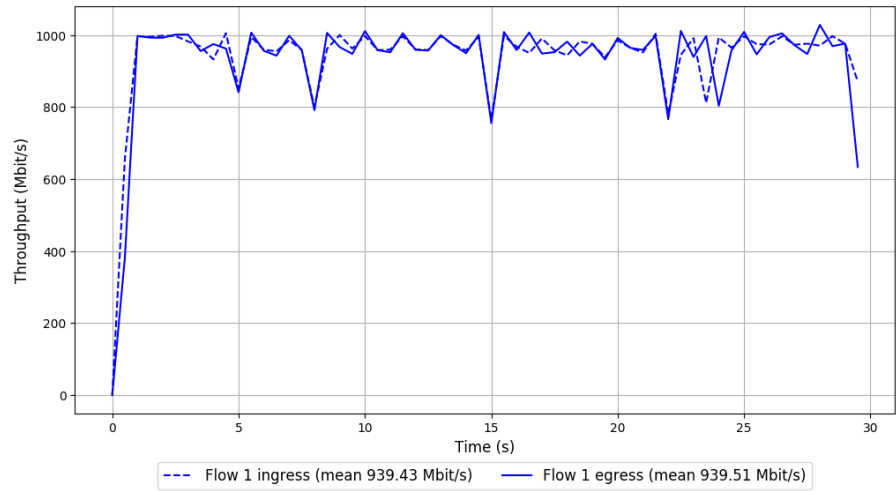
-- Flow 1:

Average throughput: 939.51 Mbit/s

95th percentile per-packet one-way delay: 145.267 ms

Loss rate: 0.91%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2017-12-20 08:35:57

End at: 2017-12-20 08:36:27

Below is generated by plot.py at 2017-12-20 12:16:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 936.99 Mbit/s

95th percentile per-packet one-way delay: 169.226 ms

Loss rate: 0.95%

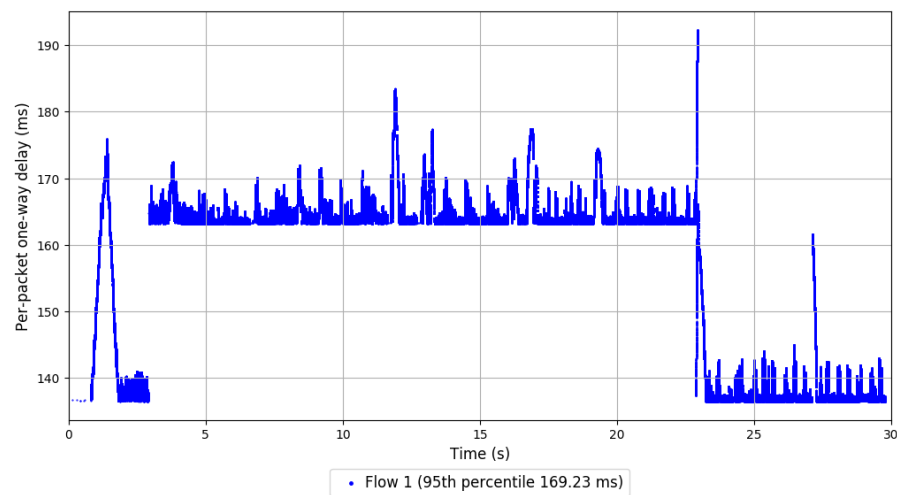
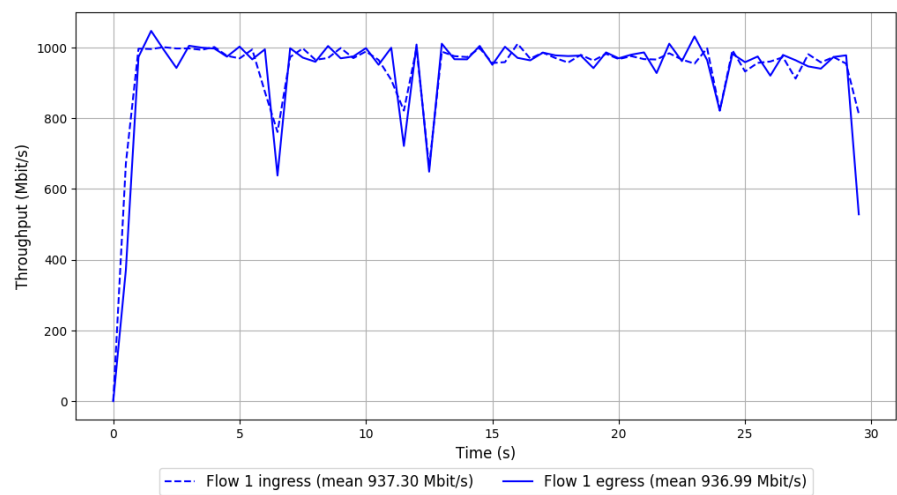
-- Flow 1:

Average throughput: 936.99 Mbit/s

95th percentile per-packet one-way delay: 169.226 ms

Loss rate: 0.95%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2017-12-20 08:48:54

End at: 2017-12-20 08:49:24

Below is generated by plot.py at 2017-12-20 12:16:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 924.75 Mbit/s

95th percentile per-packet one-way delay: 201.115 ms

Loss rate: 1.87%

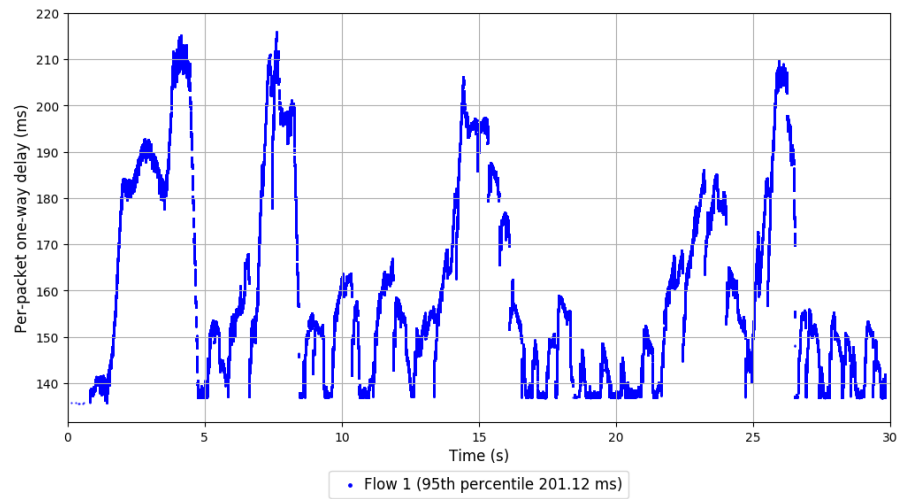
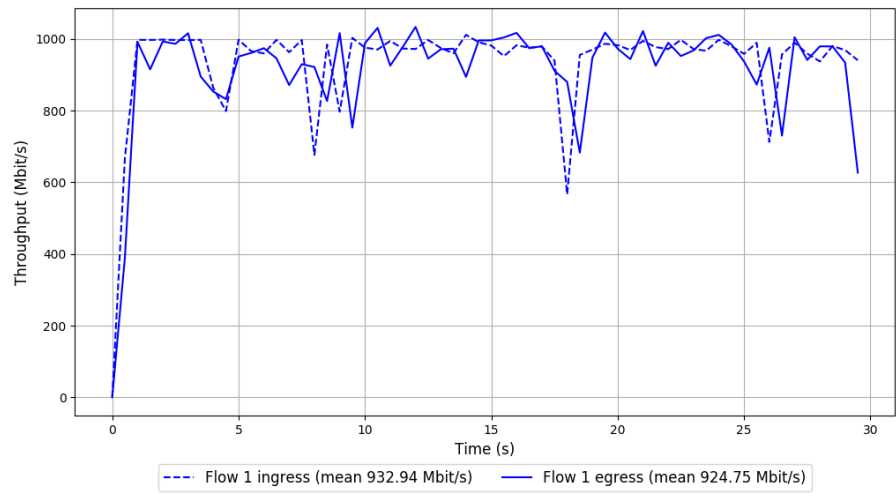
-- Flow 1:

Average throughput: 924.75 Mbit/s

95th percentile per-packet one-way delay: 201.115 ms

Loss rate: 1.87%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2017-12-20 09:01:42

End at: 2017-12-20 09:02:12

Below is generated by plot.py at 2017-12-20 12:21:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 946.91 Mbit/s

95th percentile per-packet one-way delay: 170.233 ms

Loss rate: 0.98%

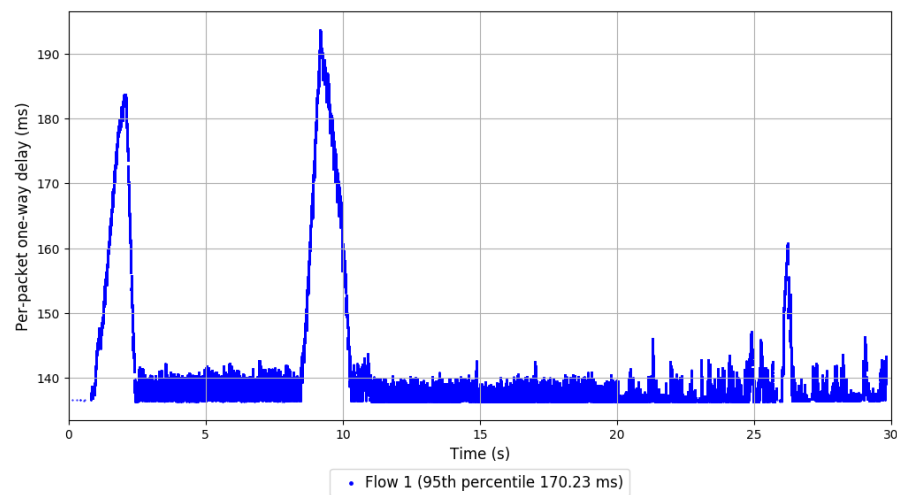
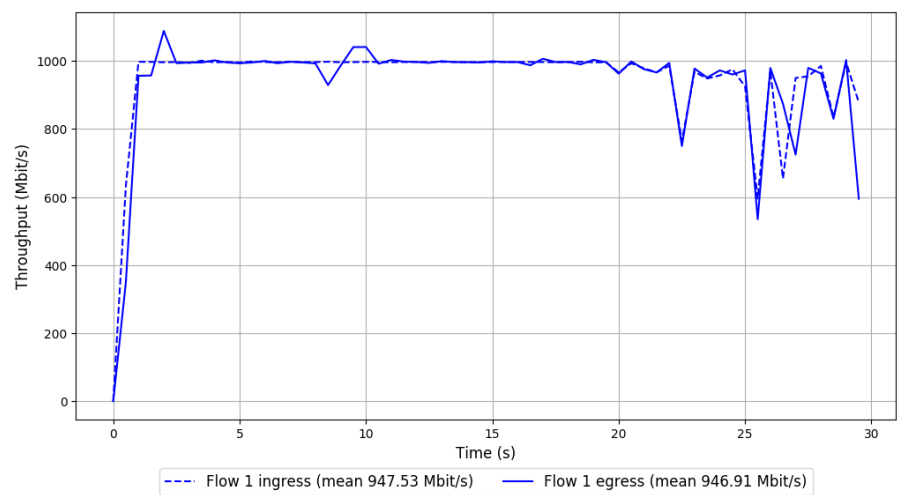
-- Flow 1:

Average throughput: 946.91 Mbit/s

95th percentile per-packet one-way delay: 170.233 ms

Loss rate: 0.98%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2017-12-20 09:14:39

End at: 2017-12-20 09:15:09

Below is generated by plot.py at 2017-12-20 12:21:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 932.57 Mbit/s

95th percentile per-packet one-way delay: 197.945 ms

Loss rate: 1.19%

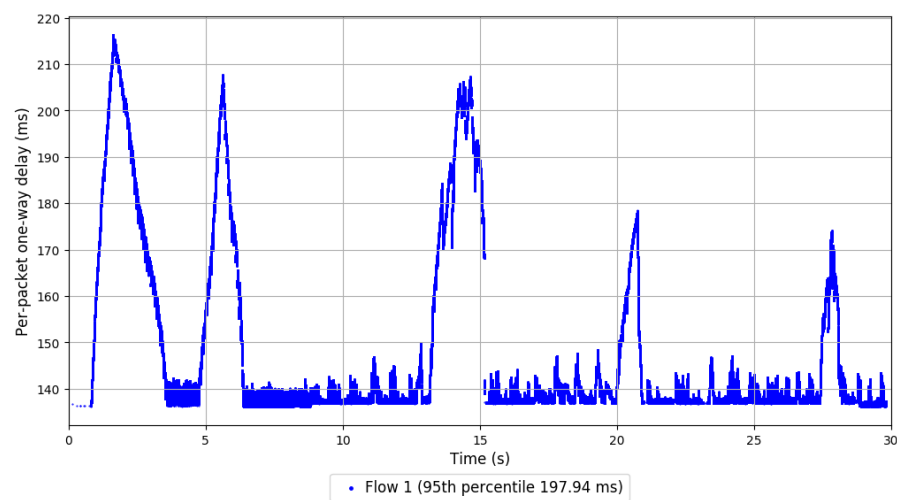
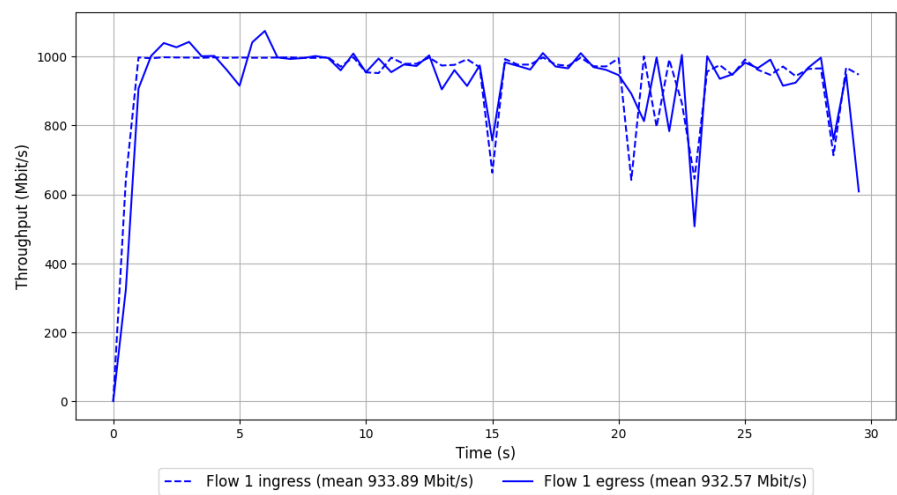
-- Flow 1:

Average throughput: 932.57 Mbit/s

95th percentile per-packet one-way delay: 197.945 ms

Loss rate: 1.19%

Run 10: Report of FillP — Data Link

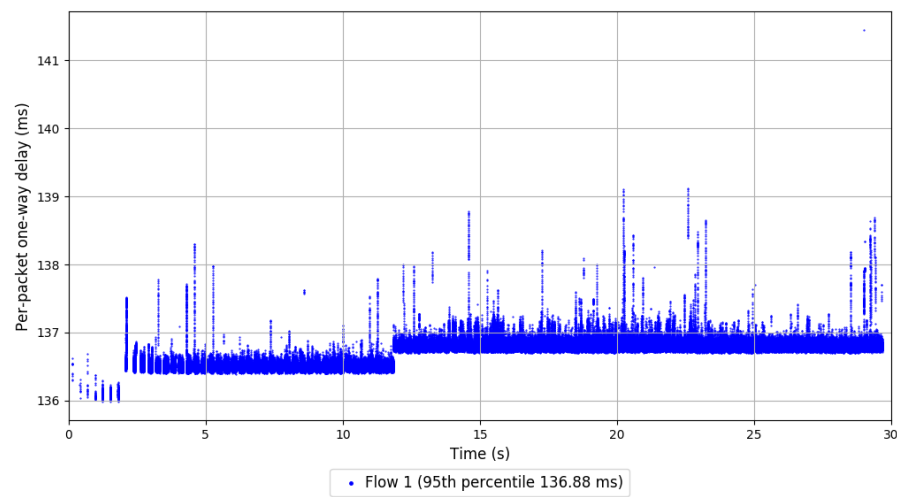
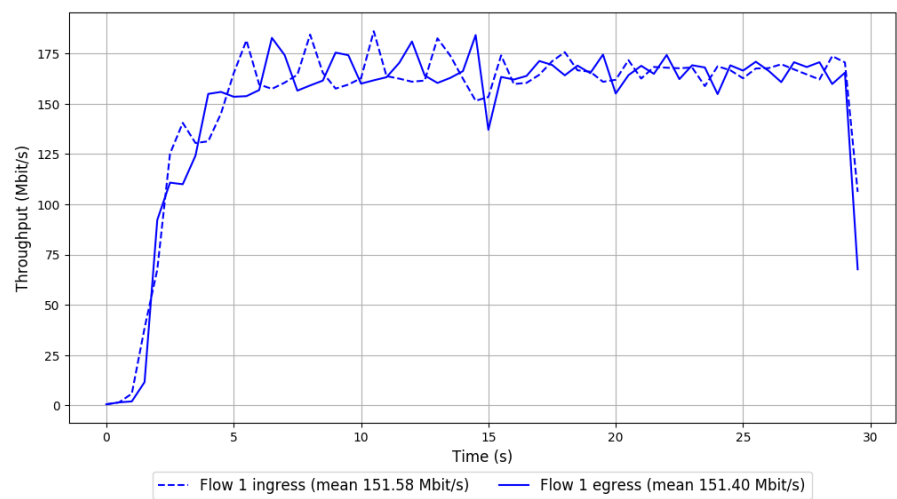


```
Run 1: Statistics of Indigo

Start at: 2017-12-20 07:15:46
End at: 2017-12-20 07:16:16

# Below is generated by plot.py at 2017-12-20 12:21:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 151.40 Mbit/s
95th percentile per-packet one-way delay: 136.884 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 151.40 Mbit/s
95th percentile per-packet one-way delay: 136.884 ms
Loss rate: 1.04%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-12-20 07:28:53

End at: 2017-12-20 07:29:23

Below is generated by plot.py at 2017-12-20 12:21:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 155.61 Mbit/s

95th percentile per-packet one-way delay: 136.517 ms

Loss rate: 1.19%

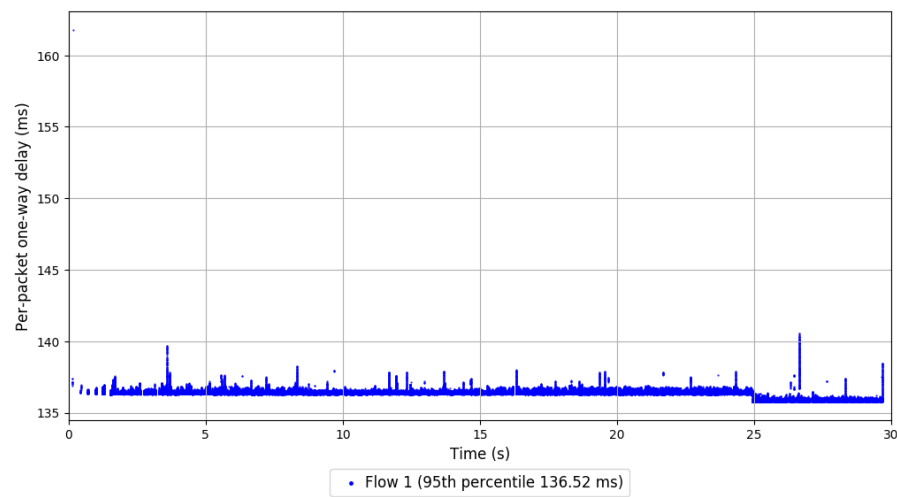
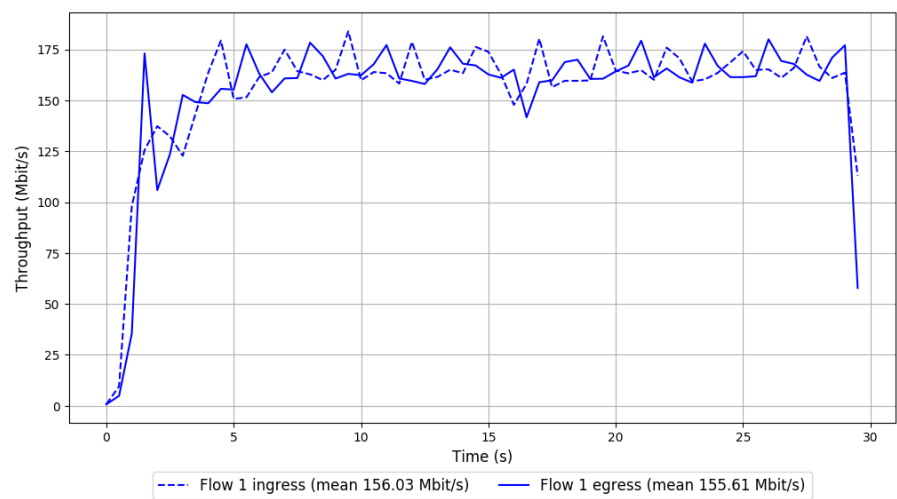
-- Flow 1:

Average throughput: 155.61 Mbit/s

95th percentile per-packet one-way delay: 136.517 ms

Loss rate: 1.19%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-12-20 07:42:11

End at: 2017-12-20 07:42:41

Below is generated by plot.py at 2017-12-20 12:21:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 144.24 Mbit/s

95th percentile per-packet one-way delay: 136.454 ms

Loss rate: 1.39%

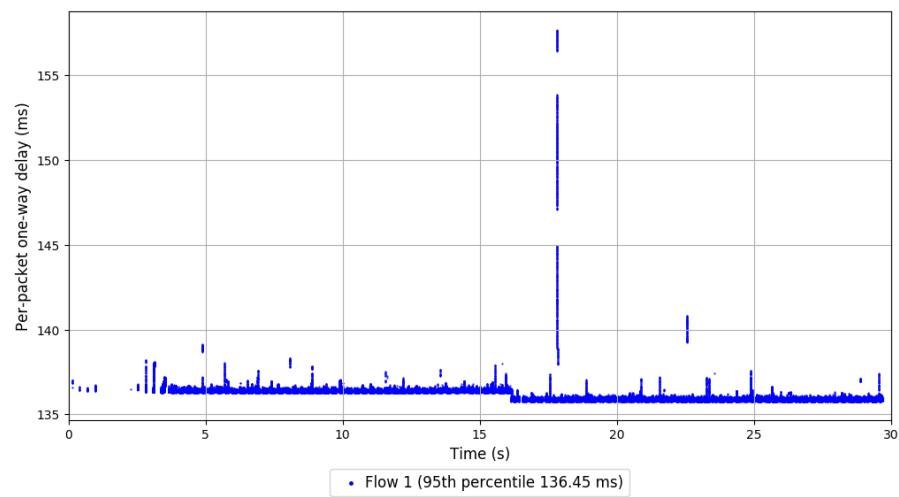
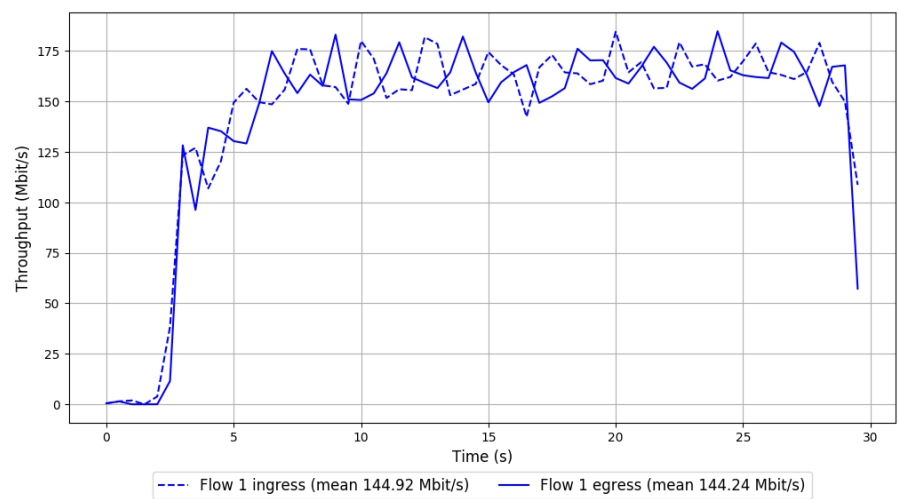
-- Flow 1:

Average throughput: 144.24 Mbit/s

95th percentile per-packet one-way delay: 136.454 ms

Loss rate: 1.39%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-12-20 07:55:16

End at: 2017-12-20 07:55:46

Below is generated by plot.py at 2017-12-20 12:21:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 149.30 Mbit/s

95th percentile per-packet one-way delay: 137.073 ms

Loss rate: 1.55%

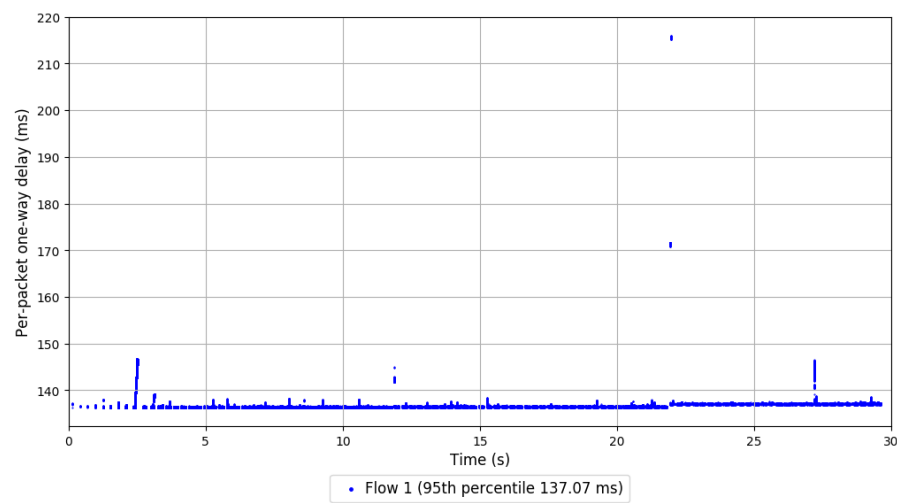
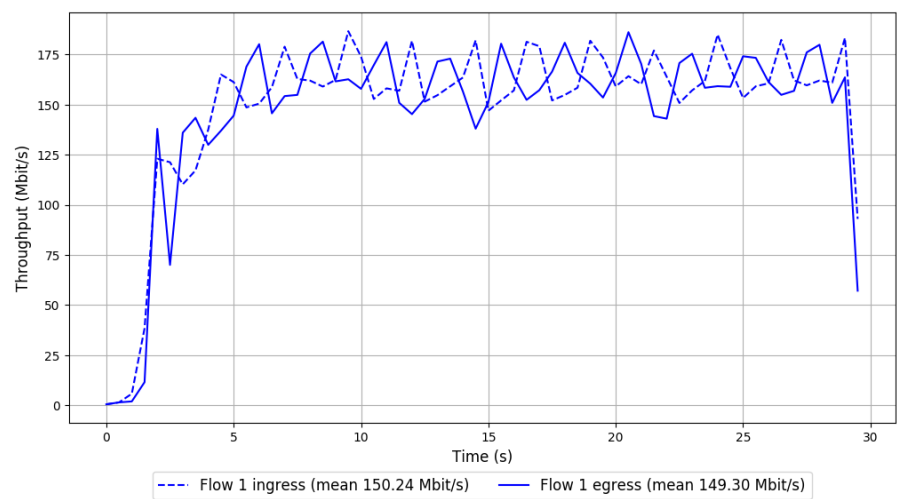
-- Flow 1:

Average throughput: 149.30 Mbit/s

95th percentile per-packet one-way delay: 137.073 ms

Loss rate: 1.55%

Run 4: Report of Indigo — Data Link

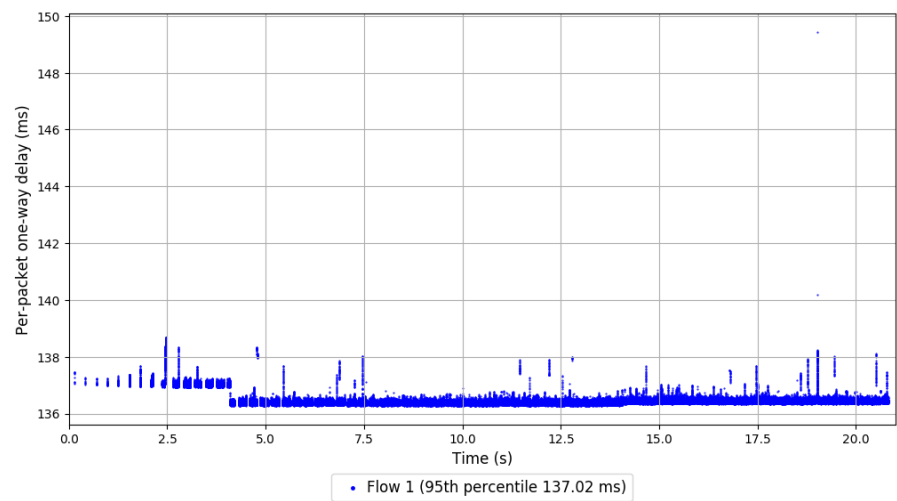
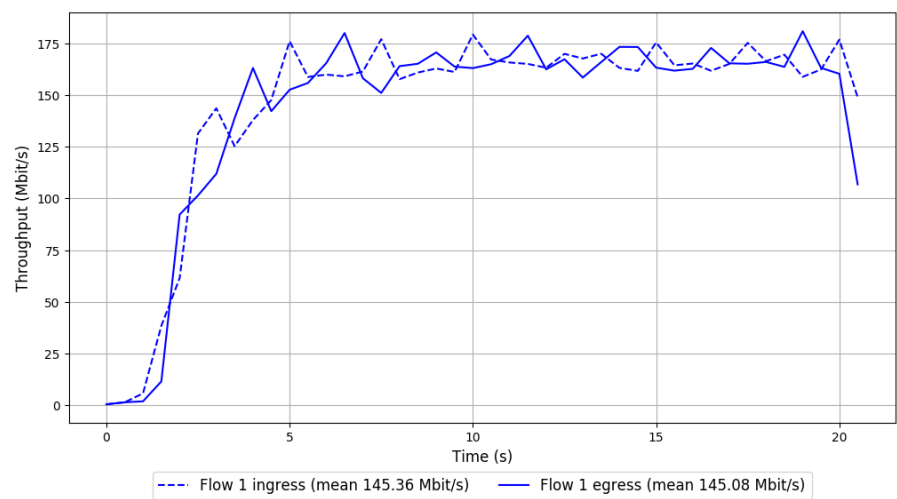


Run 5: Statistics of Indigo

Start at: 2017-12-20 08:07:55

End at: 2017-12-20 08:08:25

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-12-20 08:21:02

End at: 2017-12-20 08:21:32

Below is generated by plot.py at 2017-12-20 12:21:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 147.48 Mbit/s

95th percentile per-packet one-way delay: 136.639 ms

Loss rate: 1.28%

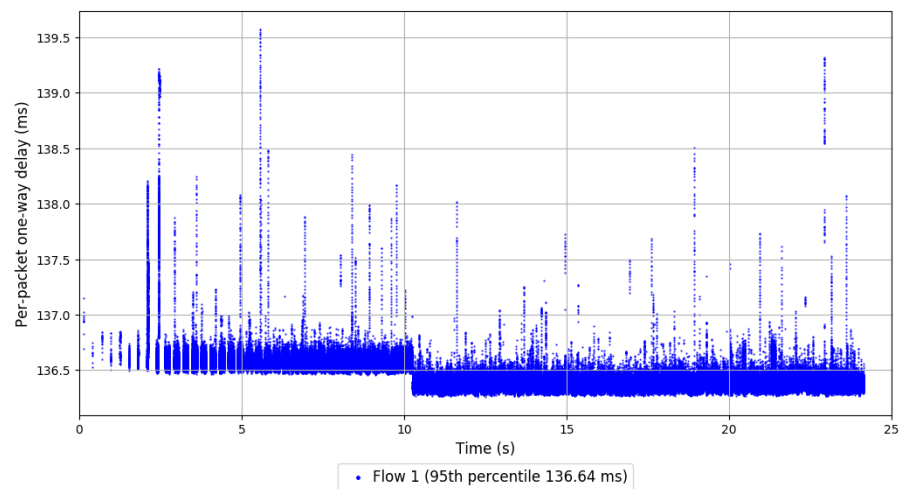
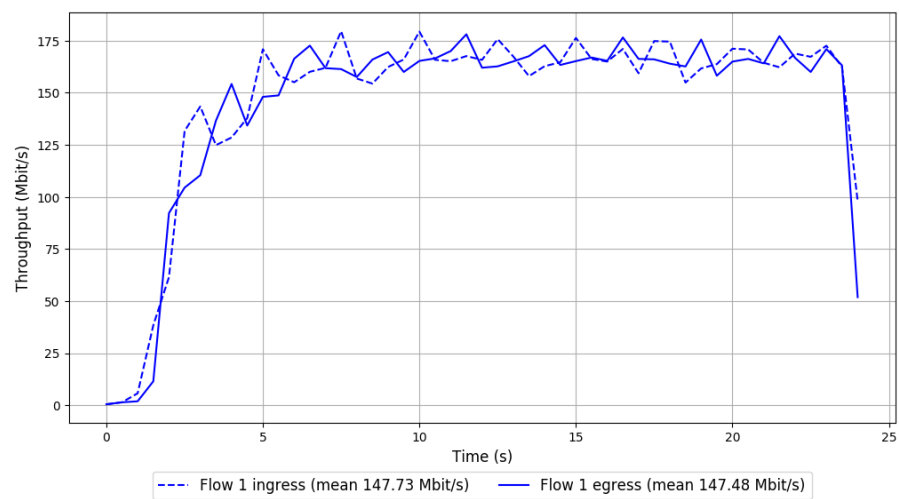
-- Flow 1:

Average throughput: 147.48 Mbit/s

95th percentile per-packet one-way delay: 136.639 ms

Loss rate: 1.28%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-12-20 08:34:12

End at: 2017-12-20 08:34:42

Below is generated by plot.py at 2017-12-20 12:21:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 150.87 Mbit/s

95th percentile per-packet one-way delay: 136.677 ms

Loss rate: 1.14%

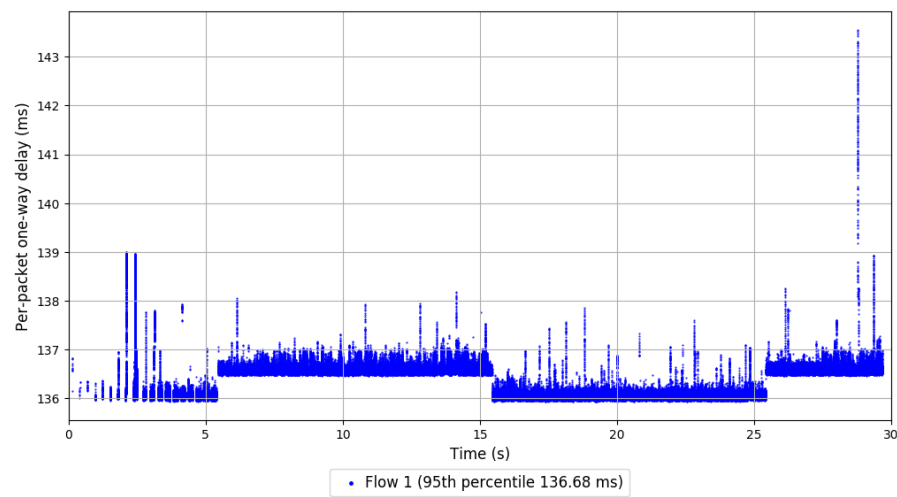
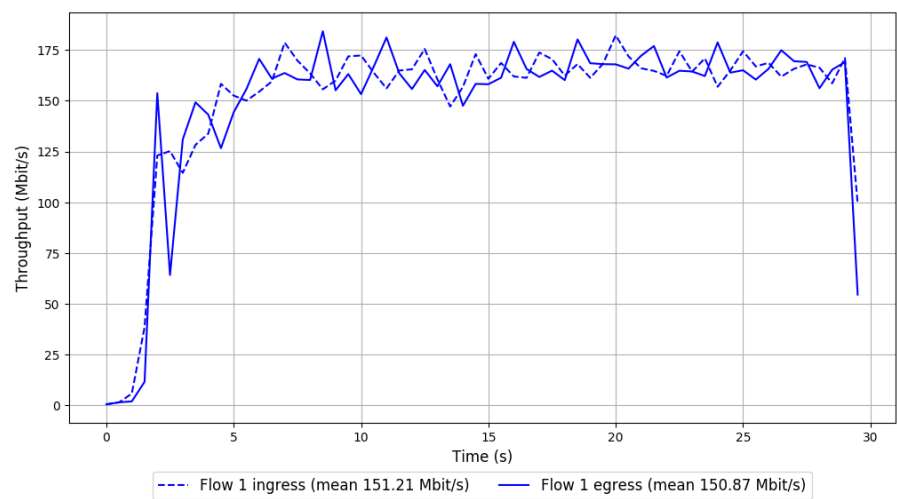
-- Flow 1:

Average throughput: 150.87 Mbit/s

95th percentile per-packet one-way delay: 136.677 ms

Loss rate: 1.14%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-12-20 08:47:13

End at: 2017-12-20 08:47:43

Below is generated by plot.py at 2017-12-20 12:21:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 147.23 Mbit/s

95th percentile per-packet one-way delay: 136.552 ms

Loss rate: 1.20%

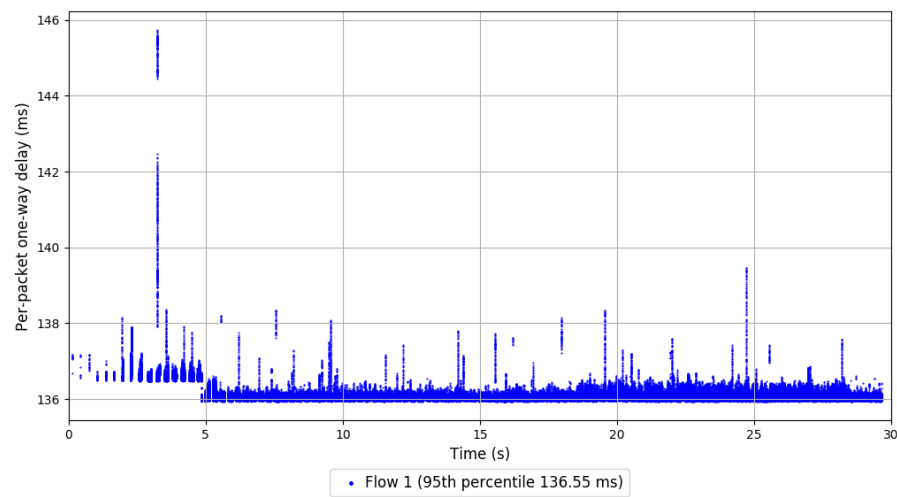
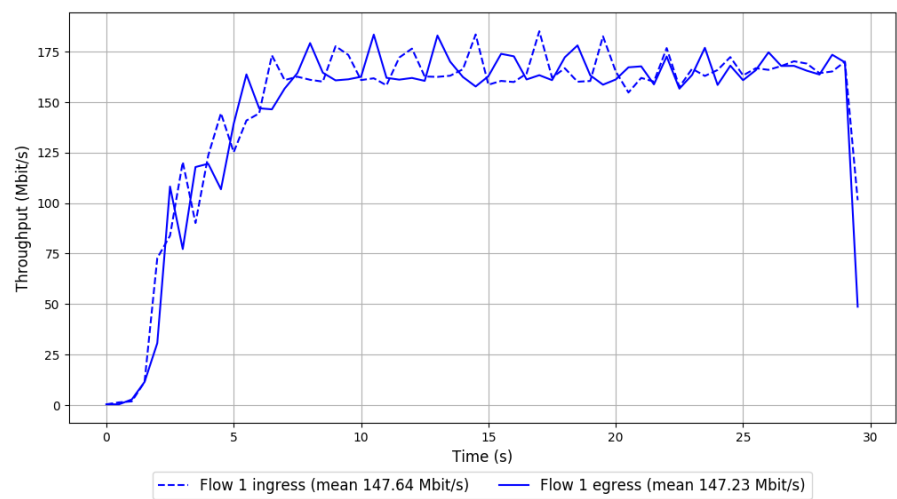
-- Flow 1:

Average throughput: 147.23 Mbit/s

95th percentile per-packet one-way delay: 136.552 ms

Loss rate: 1.20%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-12-20 09:00:00

End at: 2017-12-20 09:00:30

Below is generated by plot.py at 2017-12-20 12:21:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 141.35 Mbit/s

95th percentile per-packet one-way delay: 136.387 ms

Loss rate: 1.25%

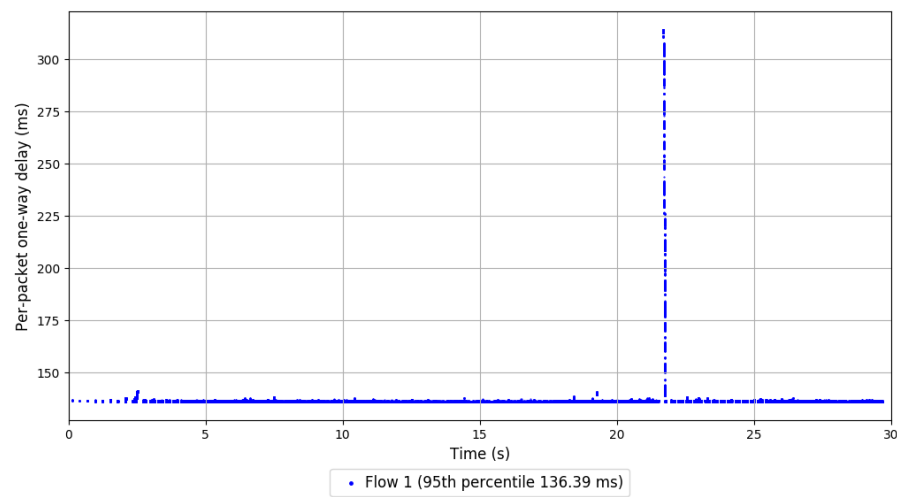
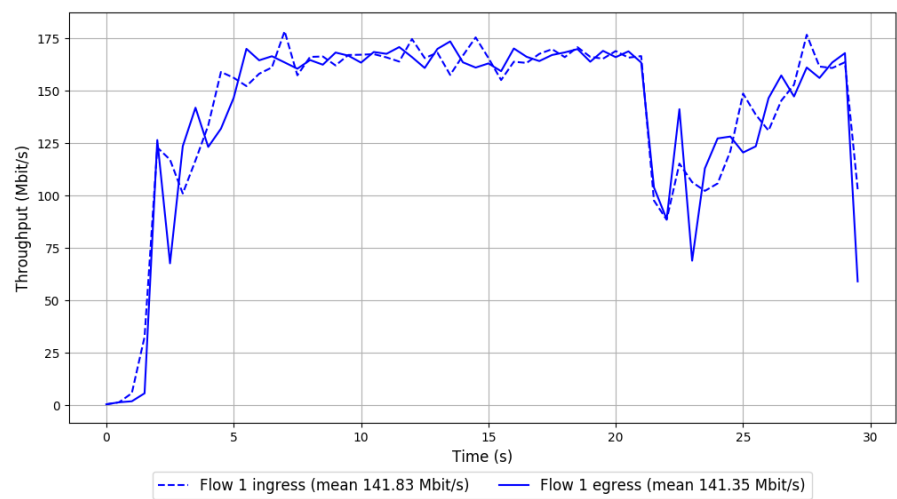
-- Flow 1:

Average throughput: 141.35 Mbit/s

95th percentile per-packet one-way delay: 136.387 ms

Loss rate: 1.25%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-12-20 09:12:56

End at: 2017-12-20 09:13:26

Below is generated by plot.py at 2017-12-20 12:21:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 150.27 Mbit/s

95th percentile per-packet one-way delay: 136.160 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 150.27 Mbit/s

95th percentile per-packet one-way delay: 136.160 ms

Loss rate: 0.99%

Run 10: Report of Indigo — Data Link

